**Invitation for Public Comment on the List of Candidates for the EPA Science Advisory Board Chemical Assessment Advisory Committee**

**February 29, 2012**

The U.S. Environmental Protection Agency (EPA) Science Advisory Board (SAB) Staff Office announced in a Federal Register Notice (Vol. 76, No. 223, pp. 71561-62) published on November 18, 2011 that it was forming a new committee under the auspices of the SAB to provide advice to EPA through the chartered SAB regarding the development of Toxicological Reviews available on EPA's Integrated Risk Assessment System (IRIS). The SAB Staff Office sought public nominations of nationally and internationally recognized experts with knowledge in human health risk assessment and expertise in a range of disciplines including, but not limited to: *public health; epidemiology; toxicology; modeling; biostatistics; and risk assessment.*

The SAB Staff Office has identified 116 candidates based solely on their expertise and willingness to serve. We hereby invite public comments on the attached List of Candidates for consideration by the SAB Staff Office in the formation of this Committee. Comments should be submitted to Dr. Suhair Shallal, Designated Federal Officer, no later than March 21, 2012. E-mailing comments (shallal.suhair@epa.gov) is the preferred mode of receipt. Please be advised that public comments are subject to release under the Freedom of Information Act.

# Biosketches for the List of Candidates
# Chemical Assessment Advisory Committee

## Acosta,Daniel

**University of Cincinnati**

Dr. Daniel Acosta, Jr. is the 4th dean of the University of Cincinnati's James L. Winkle College of Pharmacy. He was a member of The University of Texas College of Pharmacy faculty for 22 years where he helped develop a nationally ranked program in toxicology as the first Director of the Toxicology Training Program. Dr. Acosta was also responsible for encouraging minority students to consider careers in pharmacy and biomedical research through several federal and private grants. As Dean of the Winkle College of Pharmacy at the University of Cincinnati, he has worked closely with the faculty, staff, and administration to implement an entry-level Pharm.D.program that resulted in the admission of its first class into the four-year curriculum in the Fall of 2000. During his tenure as Dean, he has provided direction and resources to enhance the research and scholarly activities of the faculty, such that annual external grant funding has increased from $350,000 to close to $3,500,000. Through his leadership efforts, several new degree programs have been implemented in the professional and MS/PhD programs of the college, including one of the first national Master programs in drug development. He is the first and only Hispanic dean at the University of Cincinnati and the only Hispanic dean of pharmacy among the research-intensive colleges of pharmacy across the country. Through his efforts he established the College's first Council on Diversity and has promoted the recruitment of qualified minority students into pharmacy. He was recently appointed the Joseph W. Carl Chair of Pharmacy. He is very active in pharmacy organizations, such as the American Association of Colleges of Pharmacy and the Accreditation Council for Pharmacy Education. He has served on the Academic Affairs, Graduate Studies, Nomination, and Faculty Development Committees for AACP; and has served on several ACPE site visit teams responsible for evaluating other schools of pharmacy for accreditation purposes. He was a member of the AACP Task Force on Faculty Workforce. He was nominated as one of two candidates for Chair, Council of Deans at AACP in 2010. In addition, he was the chair of three international panels responsible for reviewing the curriculum of three schools of pharmacy in the United Arab Emirates. He was the past-chair of the Council of Ohio Colleges of Pharmacy, an organization that promotes cooperation among the seven colleges in the education of pharmacy students in the state. He is active in numerous scientific and professional organizations, serves on several editorial boards of toxicology and in vitro journals, and has been appointed to a number of government and private committees. For example, he was the chairman of the FDA Scientific Advisory Board for the National Center for Toxicology Research; Past Chairman and current member of the Texas A&M External Advisory Board of the NIEHS Center for Environmental and Rural Health; a past member of the Board of Scientific Advisors for the Office of Research and Development of the Environmental Protection Agency; a past member of the National Advisory Committee to the Director of the Center for Environmental Health of the Centers for Disease Control and Prevention; a past member of the NIEHS Scientific Advisory Committee on Alternative Toxicological Methods which is advisory to NIEHS and the National Toxicology Program; and a past member of the Expert Committee on Toxicology and Biocompatibility of the United States Pharmacopoeia, 2000-2005. He was appointed to the Committee on Toxicity Testing and Assessment of Environmental Agents for the National Academy of Sciences, which resulted in two pioneering reports on Toxicology in the 21st Century, 2007-2008. He is Vice-Chair of Toxicology Excellence in Risk Assessment, a non-profit organization that specializes in helping the public sector and government arena on risk assessment issues in the environment. He is a member of the External Advisory Board, University of Louisville NIEHS Center for Environmental Genomics and Integrative Biology. He is also a member of the Basic Pharmacology Advisory Committee, PhRMA Foundation, which recommends funding for new investigators, postdoctoral fellows, and pre-doctoral fellows. He is the recipient of several awards and honors, including the Burroughs Wellcome Toxicology Scholar (1986-1991), Colgate Palmolive Visiting Professor in In Vitro Toxicology (1996-97), and several endowed professorships at the University of Texas. He was elected President of the Society of Toxicology (2000-2001), which is the largest toxicology organization in the world (notably he was first Hispanic to be elected to this position). Another honor was his selection to receive the 2005 Society of Toxicology's Enhancement of Animal Welfare Award, which recognizes outstanding career contributions made by SOT members to the scientifically sound and responsible use of animals in research. He was selected by the Pharmaceutical Research and Manufacturers of America Foundation to receive the 2006 Foundation Award in Excellence, which honors an individual for a distinguished career of scientific and/or academic achievements in pharmacology/toxicology. His most recent honors were his election as a Fellow of the Academy of Toxicological Sciences for career contributions to the discipline of toxicology and his selection as the 2008 Outstanding Ex of Austin High School, El Paso, Texas. He was elected to serve on the ATS Board of Directors. He continues to be active in scholarly pursuits, serving as the Editor of Toxicology In Vitro, a peer-reviewed journal with a high impact in cellular and in vitro toxicology, and Associate Editor of In Vitro Cellular and Developmental Biology, a journal specializing in cell culture advances. His editorship of Cardiovascular Toxicology (a highly regarded monograph in target organ toxicology) has resulted in the latest publication of the 4th Edition in 2008. He has published over 125 peer-reviewed manuscripts; editor of four monographs on toxicology; and author of over 35 chapters in toxicology, pharmacology, and cell culture. Furthermore, he was elected as President of the International Union of Toxicology, a federation of over 50 countries and their professional toxicology organizations.

## Alexeeff,George

**California Environmental Protection Agency**

Dr. George Alexeeff, Ph.D. is Acting Director of the Office of Environmental Health Hazard Assessment (OEHHA) in the California Environmental Protection Agency. He provides scientific and policy input on the medical, scientific, and public health risks posed by hazardous substances and act as a scientific expert on health effects of various contaminants. He oversees a staff of 125 including over 80 scientists in multidisciplinary evaluations of the health impacts of pollutants and toxicants in air, water, soil and other media. He is also an adjunct Professor in the Department of Environmental Toxicology at the University of California at Davis. He earned his Ph.D. in Pharmacology and Toxicology from the University of California at Davis and has been certified as a Diplomat of the American Board of Toxicology, Inc. (DABT) since 1986. He has reviewed over 140 documents evaluating human epidemiological or animal toxicological evidence for OEHHA or other agencies such as U.S. EPA. Dr. Alexeeff has recently served on three National Academy of Sciences' Committees, and is a current member of the U.S. EPA Science Advisory Board's Drinking Water Committee, and EPA's Science Advisory Board. Dr. Alexeeff's professional activities include: past President of the Northern California Chapter of the Society of Toxicology, the past President Genetic and Environmental Toxicology Association of Northern California, member of the Society of Toxicology, and charter member of the Society for Risk Analysis.

## Amler,Robert

**New York Medical College**

Dr. Robert W. Amler, MD, is a Vice President at New York Medical College and Dean of the School of Health Sciences and Practice, and Institute of Public Health. He is Professor of Public Health, Environmental Health Science and Pediatrics, and co-founded the Hudson Valley Children's Environmental Health Center. He serves on the EPA Children's Health Professional Advisory Committee (CHPAC) and on the Boards of Directors of the national Healthy Schools Network, Westchester County Association, and Hudson Valley Cerebral Palsy Association. Dr. Amler was formerly Regional Health Administrator for the Dept of Health and Human Services, Chief Medical Officer of the CDC's Agency for Toxic Substances and Disease Registry (ATSDR), cochair of two advisory subcommittees of the President's Task Force on Children's Environmental Health and Safety Risks, chapter president of the American Academy of Pediatrics, and advisor to the US Surgeon General on a broad range of medical and environmental issues. He has extensive experience in public health, community engagement, epidemiology, environmental toxicology and emergency response. While at ATSDR he established and secured funding for the Pediatric Environmental Health Specialty Units (PEHSU) and directed development of the national consensus battery of medical biomarkers for community health investigations near Superfund sites and other point sources of pollution. An actively practicing physician, he is a graduate of Dartmouth College, Robert Wood Johnson Medical School, and the CDC's Epidemic Intelligence Service.

## Anderson,Henry

**Wisconsin Division of Public Health**

Dr. Henry A. Anderson holds positions as the State Health Official, State Environmental and Occupational Disease Epidemiologist, and Chief Medical Officer in the Wisconsin Division of Public Health, Department of Health Services, and adjunct professorships at the University of Wisconsin-Madison, Department of Population Health Sciences, and the University of Wisconsin Institute for Environmental Studies, Center for Human Studies. His expertise includes public health; preventive, environmental, and occupational medicine; respiratory diseases; epidemiology; human health risk assessment; and risk communication. Active research interests include: environmental health indicators and disease surveillance, childhood asthma, lead poisoning, reproductive and endocrine health hazards of PCB and other POPs via sport fish consumption, arsenic in drinking water, chemical and nuclear terrorism, occupational and environmental respiratory disease, occupational fatalities, and occupational injuries to youth. Dr. Anderson currently serves on the U.S. EPA National Advisory Committee for Acute Exposure Guideline Levels for Hazardous Substances and on the Presidential Advisory Board on Radiation Worker Compensation, He was chair of the Environmental Health Committee of the U.S. EPA Science Advisory Board, served on the U.S. EPA Science Advisory Board Executive Committee and is past Chair of the Board of Scientific Counselors for the National Institute of Occupational Safety and Health. He currently serves on the National Academy of Sciences Committee on the Assessment of Water Reuse and has served on four other NAS committees including the Committee for Toxicity Testing for Assessment of Environmental Agents. He was a founding member of the Agency for Toxic Substances and Disease Registry Board of Scientific Counselors (1988-1992). He served on thethe Armed Forces Epidemiology Board, the Hanford Human Health Effects Subcommittee, and the Centers for Disease Control and Prevention (CDC)/ National Center for Environmental Health Director's Advisory Committee. He is a fellow of the Collegium Ramazzini and the American Association for the Advancement of Science. He is associate editor of the American Journal of Industrial Medicine. Dr. Anderson received his M.D. degree in 1972 from the University of Wisconsin-Madison. He was certified in 1977 by the American Board of Preventive Medicine with a sub-specialty in occupational and environmental medicine and in 1983 became a fellow of the American College of Epidemiology.

## Bartell,Scott

**University of California - Irvine**

Dr. Scott Bartell is assistant professor in public health, statistics, and epidemiology at the University of California, Irvine. He earned a Ph.D. in epidemiology and M.S. in statistics at the University of California, Davis, and an M.S. in environmental health at the University of Washington. Dr. Bartell's primary research interest is environmental health methodology, with applications in risk assessment, exposure science, and epidemiology for chemical exposures. His research efforts have been supported by 15 extramural awards including an EPA STAR Graduate Fellowship. Recent projects include linkage of fate and transport models and a pharmacokinetic model for perfluorooctanoic acid with biomarkers and health outcomes in the Mid-Ohio Valley, epidemiologic studies of exposure to polychlorinated biphenyls in Anniston, Alabama, and development of methods for epidemiologic analysis of publicly available aggregated data. Dr. Bartell has also served on a variety of scientific advisory committees for the National Research Council, the Environmental Protection Agency, the Centers for Disease Control and Prevention, the National Institute of Environmental Health Sciences, and the Department of Energy.

## Bates,Michael N.

**University of California**

Dr Michael Bates is Adjunct Professor of Environmental Epidemiology in the School of Public Health at the University of California, Berkeley, where he is also Associate Director of the Global Health and Environment (GHE) Program. He obtained a BSc(Hons) in chemistry from the University of Canterbury, New Zealand; an MSc in toxicology from the University of Surrey, UK, and an MPH and PhD in epidemiology from the University of California, Berkeley. Dr Bates has broad research interests in environmental and occupational epidemiology. Currently active epidemiologic research projects for which he is principal investigator or co-investigator include a study of health effects of long-term, low-level hydrogen sulfide exposure in a geothermal area of New Zealand, a study of health effects of solvent exposure in automotive mechanics in the San Francisco Bay Area, and studies of health risks associated with household smoke exposure, including tuberculosis and cataract, in Nepal and India. Other research areas include cancer in firefighters, cancer risks from arsenic in drinking water, and the study of health effects associated with dental amalgam fillings.

## Bergerson,Joule

**University of Calgary**

Dr. Bergerson is an Assistant Professor in the Chemical and Petroleum Engineering Department, the Centre for Environmental Engineering Research and Education and the Institute for Sustainable Energy, Environment and Economy and at the University of Calgary. Her primary research interests are systems-level analysis for policy and decision making of energy system investment and management. The focus of her work is developing tools and frameworks for the assessment of prospective technology options and their policy implications from a life cycle perspective. To date, her work has addressed fossil fuel derived electricity, oil sands development and carbon capture and storage. Dr. Bergerson received her Ph.D. in a joint program of Civil and Environmental Engineering and Engineering and Public Policy at Carnegie Mellon University. The title of her dissertation was "Future Electricity Generation: An Economic and Environmental Life Cycle Perspective on Technology Options and Policy Implications". She has a Master of Engineering Degree in Chemical Engineering with a collaborative program in Environmental Engineering from the University of Toronto and an undergraduate degree in chemistry and environmental science from the University of Western Ontario.

## Blair, Aaron

**National Institutes of Health**

Dr. Blair was an epidemiologist with the National Cancer Institute (NCI) for over 30 years. He was the Chief of the Occupational and Environmental Epidemiology Branch of the Division of Cancer Epidemiology and Genetics. He retired in 2007 and is currently a Scientist Emeritus at the National Cancer Institute. In 2010 and 2011, he served as the Interim Director of the new Occupational Cancer Research Centre in Toronto, Canada, until a permanent director was hired. He currently serves as a member of the Independent Fact Finding Panel Evaluating the Use of 2,4,5-T Herbicide in Ontario. He is a co-investigator on the GuLF Study (A health study of oil spill clean-up workers and volunteers). His research has focused on cancer risks from agricultural exposures, industrial chemicals, physical inactivity, occupational exposures among women, and methodololologic issues in occupational epidemiology. In his more than 375 publications, he has evaluated cancer risks among women in studies of dry cleaners and aircraft maintenance workers. His studies of cancer mortality among workers exposed to the important industrial chemicals formaldehyde and acrylonitrile were among the first to employ sophisticated approaches to develop quantitative estimates of exposure in multi-company studies. He has evaluated the risk of non-Hodgkin's lymphoma, leukemia, and multiple myeloma among farmers in the first case-control studies to obtain detailed information on pesticide use and application practices. This work culminated in the development of the Agricultural Health Study, a long-term prospective study of 90,000 farmers and their spouses in Iowa and North Carolina. Methodologic studies have focused on confounding, meta-analysis, and misclassification in exposure assessment. Dr. Blair has served on many national and international scientific advisory groups for the International Agency for Research on Cancer, the National Toxicology Program, the Environmental Protection Agency, and Health and Welfare Canada and the National Institutes of Health. He has served on the organizing committees for many international scientific conferences and on Editorial Boards of the American Journal of Epidemiology, Scandinavian Journal of Work, Environment and Health, the Journal of Agricultural Safety and Health, and the American Journal of Industrial Medicine. Dr. Blair is a member of the American Epidemiologic Society, a Fellow of the American College of Epidemiology and the Collegium Ramazzini.

## Blumberg, Bruce

**University of California Irvine**

Dr. Bruce Blumberg received the Ph.D. from the University of California, Los Angeles in 1987. His postdoctoral training was in the molecular embryology of vertebrate development at the Department of Biological Chemistry in the UCLA Medical School from 1988-1992. Dr. Blumberg was appointed as a Staff Scientist at The Salk Institute for Biological Studies, La Jolla, CA in 1992 where he focused on the molecular endocrinology of orphan nuclear receptors and their role in embryonic development and adult physiology. Dr. Blumberg joined the faculty at U.C., Irvine in 1998 where he is currently Professor of Developmental and Cell Biology, Pharmaceutical Sciences and Biomedical Engineering. His current research focuses on the role of nuclear hormone receptors in development, physiology and disease. Particular interests include patterning of the vertebrate nervous system, the differential effects of endocrine disrupting chemicals on laboratory model organisms compared with humans, interactions between xenobiotic metabolism, inflammation, and cancer, and the role of environmental endocrine disrupting chemicals on the development of obesity and diabetes. Dr. Blumberg and his colleagues originated the obesogen hypothesis which holds that developmental exposure to endocrine disrupting chemicals can induce permanent physiological changes. EDC exposure elicits epigenetic alterations in gene expression that reprogram stem cell fate to favor the development of fat cells. Exposed animals are predisposed to develop more and larger fat cells, despite normal diet and exercise which is likely to lead to weight gain and obesity over time.

## Bois, Frederic

**Institut National de l'Environnement Industriel et des Risques (INERIS)**

Dr. Frédéric Y. Bois is Professor and the current Chair of Mathematical Modelling for Systems Toxicology of the Compiegne University of Technology and Research Director at the French National Institute for Industrial Environment and Risks (INERIS). His teaching and research focuses on quantitative toxicology and risk assessment. He has directed research, at the University of California at Berkeley and the Lawrence Berkeley Laboratory, for the Food and Drug Administration, the National Institute of Health, the Environmental Protection Agency, and the Occupational Safety and Health Administration. He is member of the American Association for the Advancement of Science, the Society for Mathematical Biology, the European Science Foundation-EERO Association, the French Statistical Society, the French National Association for Technological Research, and the French National Order of Merit. Member of the French Committee for Precaution and Prevention, and served on the US National Research Council Standing Committee on Risk Assessment Issues and Reviews. He is a recipient of the American Statistical Association "Outstanding Statistical Application Award" and of the French Epidaure Prize for Environmental Health Research.

## Breeding, David

**Office of the Vice Chancellor for Engineering**

David C. BreedingPhD, RPE, CSP, CHMM; holds both the BS in Environmental Health & Safety & the MS in Industrial Hygiene from Tennessee, the MBA in Corporate Strategic Management from Vanderbilt University, and the PhD in Environmental Engineering & Safety Engineering from Texas A&M University; he also holds a diploma from the Environmental Controls Institute at Reynolds College and a diploma from the National Toxicology Institute at Michigan. He has completed additional post-graduate studies in environmental management at the George Washington University and at Yale University, in industrial hygiene at the Harvard School of Public Health and the University of Tennessee, in industrial toxicology at Wayne State University, in hazardous materials emergency management at the Georgia Institute of Technology, and in security vulnerability and threat risk assessment at the Texas Engineering Extension Service. All academic degrees were earned while holding full-time, professional positions. Dr. Breeding is a strong believer of documenting professional competencies through licensure, certification and registration. He holds several professional credentials in the EH&S disciplines by competitive examination, including: CSP, RPE, RS, CHMM, CHCM, RPIH, CET, CT and others. He has published four books, over 150 articles, and about 300 training presentations in the EH&S disciplines. Dr. Breeding has over 25 years of professional experience including, Director of Environmental Health, Safety and Security, with the Office of the Vice Chancellor for Engineering at Texas A&M University & TEES; Director of the OSHA Training Institute-Southwest Education Center; Head of Environmental & Occupational Safety Training with TEEX; Corporate Industrial Hygiene Manager for Champion International Corporation; Director of Education, Training & Technical Assistance with OSHA; Assistant Professor of Environmental & Occupational Health Sciences at Western Carolina University, and Assistant Professor (tenured) of Environmental Safety Technology at Walters State College. He has been a reserve deputy sheriff and has taught at the Tennessee State Police Academy. He began his career as a Compliance Officer for the State of Virginia.

## Brown, LaVerne L.

**University of Virgin Islands**

Dr. LaVerne Brown is an Associate Professor of chemistry at the University of the Virgin Islands with a background in Medicinal chemistry, organic synthesis, and natural products chromatographic and mass spectrometry techniques. Currently, Dr. Brown is the director of the new Center for Complementary and Alternative Medicine on the campus of UVI. As director, Dr. Brown supervises all aspects of the Center's specific aims including: 1. establishing a detailed record of trends of alternative medicine use in the Territory with respect to specific disease states via the use of patient surveys, 2. determining the efficacy and safety of commonly used alternative medicines in the Territory with respect to variations in preparation and storage conditions, 3. evaluating the benefits of Alternative Medicine use over pharmaceutical treatments, 4. investigating the challenges associated with alternative medicine use with respect to drug-drug interactions, and 5. disseminating the data to the local community and health care providers. With these experiences, Dr. Brown has demonstrated expertise in areas relevant to the EPA Science Advisory Board.

## Bruckner,James

**University of Georgia**

Dr. James V. Bruckner received his B.S. in pharmacy and M.S. in toxicology from the University of Texas, as well as a Ph.D. in toxicology from the University of Michigan. He has held faculty positions at the University of Kansas, the University of Texas Medical School at Houston, and the University of Georgia (UGA). He was founder and director of UGA's Interdisciplinary Graduate Program in Toxicology for some 15 years. He is currently Professor of Pharmacology and Toxicology at the UGA College of Pharmacy. Dr. Bruckner has served on the editorial boards of Toxicology and Applied Pharmacology, Journal of Toxicology and Environmental Health, Toxicology, Chemosphere and the International Journal of Toxicology. Dr. Bruckner has been the lead author of a chapter entitled "Toxic Effects of Solvents and Vapors" in the last three editions of Casarette and Doull's Toxicology: The Basic Science of Poisons. His primary research focus is on the toxicology and toxicokinetics of volatile organic chemicals (VOCs), drug-chemical interactions at environmental exposure levels, metabolic and toxicokinetic bases for susceptibility of children to chemicals, and physiological modeling of pyrethroid insecticides. The relevance of experimental designs to health risks of "real life" chemical exposures is of particular interest. Research funding for the past 35 years has consistently come from federal agencies for toxicology studies of problems of national concern. Dr. Bruckner has published more than 200 journal articles, book chapters and abstracts. Many of these papers focus on the toxicology, toxicokinetics and PBPK modeling. He has served on a variety of expert panels and committees for the U.S.EPA, NIEHS, NASA, Air Force, ATSDR/CDC, FDA and the National Academy of Sciences (NAS). Much peer review work has involved IRIS documents. The NAS appointments have included, among others, the Committees on Safe Drinking Water, Pesticides in Diets of Infants and Children; Acute Exposure Guideline Levels; Health and Safety Consequences of Child Labor; Use of Third Party Pesticide Toxicity Research with Human Participants; and Contaminated Drinking Water at Camp Lejeune. Such work has frequently involved assessment of health risks to populations living in the proximity of military chemical and nuclear disposal sites (e.g., Camp Lejeune, NC; Fort Detrick, MD; Savannah River site, SC). Dr. Bruckner is currently a member of the ACGIH TLV chemical substances panel, the NAS Committee on Toxicology, and the EPA FQPA Science Advisory Board.

## Buckley,Timothy J.

**The Ohio State University**

Dr. Timothy J. Buckley is an associate professor and Chair of the Division of Environmental Health Sciences at The Ohio State University (OSU) College of Public Health. Dr. Buckley received his PhD in Exposure Science from Rutgers University and has a Masters of Health Science in Industrial Hygiene from the Johns Hopkins Bloomberg School of Public Health. He is a certified industrial hygienist and has been elected to leadership positions among professional associations including the American Industrial Hygiene Association and the International Society of Science. Dr. Buckley's research expertise is in human exposure assessment as applied in risk assessment and epidemiology. This expertise is formed from 24 years of research experience spanning government (US EPA; n=5 y) and academia (n=15 y). Throughout his research career, Dr. Buckley has focused on methods, measurements, and models for assessing human exposure to contaminants in the community and work environments as a basis for assessing the public health threat and developing strategies for prevention. Dr. Buckley's

current research is focused on the impact of air pollution on susceptible populations including urban economically disadvantaged communities, the school environment and children's asthma, spatial and temporal variability in traffic-related air pollution, and dermal exposure to workplace and environmental contaminants. He has published over 60 peer-reviewed research articles on these and other topics. Dr. Buckley serves on the National Academy of Science committee on "Human and Environmental Exposure Science in the 21st Century" and is an associate editor for Environmental Health Perspectives.

## Budinsky Jr.,Robert

**The Dow Chemical Company**

Dr. Robert Budinsky serves as a toxicology consultant to a number of businesses and remediation efforts at the Dow Chemical Company. He has extensive experience in toxicological research and risk assessment directed towards addressing the product stewardship and regulatory needs of these businesses and remediation, including working with the U.S. EPA on IRIS, EDSP, HPV, and CERCLA issues. His research focuses on mode-of-action, human sensitivities, mixtures, metabolism and the application of toxicological and exposure data in risk assessment, especially with respect to dioxin, vinyl acetate, and glycol ethers. For example, he and his colleagues recently published studies on AHR and AHR chaperone protein polymorphisms in a number of ethnic groups to evaluate the potential for sensitive subpopulations with respect to dioxin. He obtained his B.S. in Pharmacy and Ph.D. at the University of Cincinnati followed by an NIH-sponsored post-doctoral fellowship at the Medical University of South Carolina. After his post-doctoral experience he worked 12 years as a private consultant on toxicology, regulatory and industrial hygiene issues. In 2000, he joined the Dow Chemical Company as a toxicology consultant.

## Burbacher,Thomas

**University of Washington**

Dr. Thomas Burbacher is Professor of Environmental and Occupational Health Sciences at the University of Washington (UW) where he teaches classes in basic Environmental and Occupational Health and Children's Environmental Health. He is the Deputy Director of the UW Pacific Northwest Center for the National Children's Study. In addition, Dr. Burbacher is the Head of the Division of Reproductive and Developmental Sciences and Director of the Infant Primate Research Center at the UW National Primate Research Center and the Center on Human Development and Disability (CHDD). He is also the Head of the Developmental Toxicology Research Emphasis Area at the CHDD and is Director of the Research Translation Core for the UW Superfund Research Program. Dr. Burbacher holds a B.S. in Psychology from the University of Cincinnati and a Ph.D. in Psychology from the University of Washington. His postdoctoral work included research in Developmental Toxicology in the Environmental Pathology Training Program at the UW. Dr. Burbacher's research investigates changes in brain development and function caused by prenatal exposure to neuroactive substances. He has conducted research in the area of mercury developmental neurotoxicity utilizing nonhuman primate models for several decades and was a member of the National Academy of Sciences panel that developed the report on the "Toxicological Effects of Methylmercury." His research reaches across species, including studies with human populations and a variety of animal models, to enhance a fundamental understanding of toxicants and their role in biological and behavioral development. Examples of such research include the following: (1) Studies in human populations designed to examine the effects of early domoic acid exposure on motor and cognitive development in Native American populations; (2) Activities of the National Children's Study sites in Washington and Oregon that are studying the effects of the environment on the health and behavioral development of American children from birth to 21 years of age; (3) Experimental approaches in rodent models that include studies of the interaction between genetics and environmental exposures and (4) Landmark studies in developmental neurotoxicology using the nonhuman primate model at the Infant Primate Research Laboratory to study compounds such as methylmercury, thimerosal, alcohol and methanol. Data from Dr. Burbacher's research program are used to help formulate policies aimed at the protection of human populations from levels of exposure to environmental contaminants such as methylmercury and methanol that are associated with adverse health effects and developmental disabilities.

## Bus,James

**The Dow Chemical Company**

Dr. James S. Bus is Director of External Technology, Toxicology and Environmental Research and Consulting at The Dow Chemical Company (1989-present). He previously held positions as Associate Director of Toxicology and Director of Drug Metabolism at The Upjohn Company (1986-1989), Senior Scientist at the Chemical Industry Institute of Toxicology (CIIT, 1977-1986), and Assistant Professor of Toxicology, University of Cincinnati (1975-1977). Dr. Bus currently serves on the Board of Directors of The Hamner Institutes (formerly CIIT). He has also has served as Chair of the American Chemistry Council and International Council of Chemical Associations Long-Range Research Initiatives; the USEPA Office of Research and Development Board of Scientific Counselors (1997-2003) and Chartered Science Advisory Board (2003-2009); the National Toxicology Program Board of Scientific Counselors (1997-2000); the FDA National Center for Toxicological Research Science Advisory Board (2004-2010); and the National Academy of Sciences/National Research Council Board on Environmental Studies and Toxicology (BEST; 2005-2011). He serves as an Associate Editor of Toxicology and Applied Pharmacology,and on the Editorial Boards of Environmental Health Perspectives and Dose Response. Dr. Bus is a member of the Society of Toxicology (serving as President in 1996-97), the American Society for Pharmacology and Experimental Therapeutics, the American Conference of Governmental and Industrial Hygienists, and the Teratology Society. He is a Diplomate and Past-President of the American Board of Toxicology and a Fellow of the Academy of Toxicological Sciences (member of Board of Directors, 2008-present; Vice-President and President, 2010-2011). Dr. Bus received the Society of Toxicology Achievement Award (1987) for outstanding contributions to the science of toxicology; the Society of Toxicology Founders Award (2010) for leadership fostering the role of toxicology in improving safety decisions; Rutgers University Robert A. Scala Award (1999) for exceptional work as a toxicologist in an industry laboratory; and the K.E. Moore Outstanding Alumus Award (Michigan State University, Dept. Pharmacol. And Toxicol.). He received his B.S. in Medicinal Chemistry from the University of Michigan (1971) and Ph.D in pharmacology from Michigan State University (1975) and currently is an Adjunct Professor in the Dept. Pharmacology and Toxicology at that institution. His research interests include mechanisms of oxidant toxicity, chemical and pesticide modes of action, defense mechanisms to chemical toxicity, relationships of pharmacokinetics to expression of chemical toxicity, and general pesticide and industrial chemical toxicology. He has authored/co-authored over 100 publications, books, and scientific reviews.

## Campleman,Sharan

**Electric Power Research Institute**

Dr. Sharan Campleman is an environmental health scientist and project manager at the Electric Power Research Institute, with responsibility for oversight of both basic toxicological health studies and the integration of experimental and epidemiologic data into the quantitative risk assessment process. Her current research focus includes work on the health effects of trace metals and organics; the assessment of effects related to mixed chemical exposures; and, the development and utilization of biologically based models for quantifying risk at low exposure levels. Dr. Campleman's experience includes a variety of settings in both the public and private sectors, ranging from basic research in molecular toxicology to the regulatory application of toxicological and epidemiologic data for identifying environmental concerns. She also has substantial experience in public health surveillance including as a principal investigator, cancer epidemiologist and Certified Tumor Registrar with the Public Health Institute/California Cancer Registry. She received a Ph.D. and M.P.H. in environmental health sciences with an emphasis in toxicology from the University of California Berkeley, followed by post-doctoral training in environmental epidemiology as a fellow with the California Environmental Protection Agency (CalEPA) Office of Environmental Health Hazard Assessment (OEHHA), Air Toxicology and Epidemiology Section. She also served as a Toxicology consultant for the American Lung Association, the California Environmental Protection Agency and Prop65 News. Dr. Campleman participates in numerous professional societies, including the Society for Epidemiologic Research, the Society of Toxicology, the Society for Risk Analysis and the National Cancer Registrars Association.

## Clewell,Harvey

**The Hamner Institutes for Health Sciences**

Dr. Clewell is the Director of the Center for Human Health Assessment at the Hamner Institutes for Health Sciences. Dr. Clewell is a professional research manager with over thirty-five years of experience in environmental quality research, toxicology research, chemical risk assessment, and hazardous materials management. He is a leading expert on the use of tissue dosimetry and mode-of-action information in chemical safety and risk assessment. He has gained an international reputation for his work in the applications of physiologically based pharmacokinetic (PBPK) modeling. He has played a major role in the first uses of PBPK modeling in cancer and non-cancer risk assessments by EPA, ATSDR, OSHA, and FDA, for such chemicals as methylene chloride, trichloroethylene, vinyl chloride, and retinoic acid. He has also served on a number of external peer review panels for EPA, ATSDR, and Health Canada. He received a Masters Degree in Chemistry from Washington University, St. Louis, MO, and a PhD in Toxicology from the University of Utrecht, the Netherlands. His current research interests include the application of physiologically based pharmacokinetic (PBPK) modeling to support in vitro to in vivo extrapolation of cell based toxicity assays, the incorporation of genomic dose-response information in quantitative risk assessment, and the application of systems biology methods to understand drug and chemical toxicity.

## Cobb, George

**Baylor University**

Dr. George P. Cobb is a Professor at Baylor University, where he serves as Chair of the Department of Environmental Science. Prof. Cobb received a BS in Chemistry from the College of Charleston (1982) and a Ph.D. from The University of South Florida (1989). Prof. Cobb began his academic career in 1990 as a charter member of the Department of Environmental Toxicology at Clemson University. He then served as a charter member of the Department of Environmental Toxicology at Texas Tech University (1997-2011). Prof. Cobb serves on the World Council for the Society of Environmental Toxicology and Chemistry (SETAC), and is the immediate past President of SETAC North America. He also serves in leadership positions within the American Chemical Society, most recently as a member of the Committee on Environmental Improvement. Throughout his career, Prof. Cobb has used novel sampling and analysis techniques to evaluate toxicant transport, transformation, and biological exposure processes. He has applied these techniques to the rapid and cost effective assessment of risks at hazardous waste sites, in industrial settings, within agricultural monocultures, and near concentrated animal feeding operations. Prof. Cobb has served on many United States Environmental Protection Agency (USEPA) panels to evaluate risks of pesticides and genetically modified organisms. He has published over 105 peered reviewed journal articles and numerous book chapters. Prof. Cobb has graduated 27 Masters and Ph.D. students with degrees that encompass mathematics, engineering, chemistry and environmental toxicology.

## Collins,James

**The Dow Chemical Company**

Dr. James Collins received his PhD in 1981 from the University of Illinois at Urbana-Champaign and is a Fellow in the American College of Epidemiology. He is currently the Director of Epidemiology at the Dow Chemical Company in Midland, Michigan. He is also an Adjunct Research Professor at the University of Pittsburgh, School of Public Health and at Saginaw Valley State University. Prior to joining Dow, he directed epidemiology programs at Solutia, Monsanto, Ford, and American Cyanamid and worked at Argonne National Laboratory. His major research interest is the impact of occupational and environmental exposures on health including exposures from dioxins, benzene, acrylonitrile, acrylamide, formaldehyde, and glutaraldehyde. He has published over 100 papers in these areas. He is currently an Officer in the American College of Epidemiology, Chairs the Scientific Advisory Panel for the National Urban Air Toxics Research Center, and is on the Editorial Boards for Environmental Health Perspectives, Journal of Environmental and Occupational Medicine and the Open Epidemiology Journal. He has also serves and has served on several science advisory committees including Houston's Strategic Health Effects Research Panel, Oklahoma Center for Toxicology, Toxicology Excellence for Risk Assessment and several industry groups

## Colvin,Vicki

**Rice University**

Dr. Vicki Colvin received her Bachelor's degree in chemistry and physics from Stanford University in 1988, and in 1994 obtained her Ph.D. in chemistry from the University of California, Berkeley. During her time at the University of California, Berkeley, Colvin was awarded the

American Chemical Society's Victor K. LaMer Award for her work in colloid and surface chemistry. Colvin completed her postdoctoral work at AT&T Bell Labs. In 1996, Colvin was recruited by Rice University to expand its nanotechnology program. Currently she serves as Director of the Center for Biological and Environmental Nanotechnology (CBEN). CBEN was one of the nation's first Nanoscience and Engineering Centers funded by the National Science Foundation. July 2011, Dr. Colvin was appointed Vice Provost for Research; she also serves as Kenneth S. Pitzer-Schlumberger Professor of Chemistry and Professor of Chemical & Biomolecular Engineering. Colvin has received numerous accolades for her teaching abilities, including Phi Beta Kappa's Teaching Prize for 1998-1999 and the Camille Dreyfus Teacher Scholar Award in 2002. She was named one of Discover Magazine's "Top 20 Scientists to Watch" and received an Alfred P. Sloan Fellowship in 2002. Her research in low-field magnetic separation of nanocrystals was named Top Five (no. 2 of 5) Nanotech Breakthroughs of 2006 by Forbes/Wolfe Nanotech Report, and resulted in her being named 2007 Best & Brightest Honoree by Esquire Magazine; she was also named a Fellow in the Association for the Advancement of Science (AAAS), 2007-2008. Dr. Colvin is a frequent contributor to Science, Advanced Materials, Physical Review Letters and other peer-reviewed journals, having authored/co-authored over 75 articles. She also holds five patents, with eight patent applications in process. Nanomaterials and nanotechnology are expected to play a central role in establishing and maintaining sustainable and healthy communities in our environment. Paradoxically, just how nanomaterials affect human health in communities is not well understood. Establishing the necessary regulations or guidelines related to sustainable communities, where nanomaterials are present, requires both understanding and careful thinking. This is especially appropriate in making chemical assessments where nanomaterials are at the center of the deliberations. Dr. Colvin is well qualified to contribute where chemical assessments are to be made involving nanomaterials. Dr. Colvin has an extensive research program on nanomaterials, is the Director a major (NSF) Center and is a member of NIH etc, and Argonne etc.

## Corcoran,George

**Wayne State University**

Dr. Corcoran is Professor and Chairman of the Department of Pharmaceutical Sciences, College of Pharmacy & Health Sciences, Wayne State University, and Adjunct Professor of Pediatrics, Wayne State University School of Medicine. He earned his B.A. in Chemistry (Ithaca College - 1970), M.S. in Chemistry (Bucknell University - 1973), and Ph.D. in Pharmacology and Toxicology (George Washington University -1980), before completing Postdoctoral training in Toxicology (Baylor College of Medicine, The Methodist Hospital - 1981). Prior to his Wayne State appointment, Dr. Corcoran served as Assistant Professor of Pharmaceutics at the State University of New York at Buffalo, followed by 9 years at the University of New Mexico in Albuquerque as Associate Professor and later Professor, and Director of the Toxicology Graduate Program. Dr. Corcoran has published nearly 200 original research papers, abstracts and other reports, and has received nearly $6 million in grants and contracts as Principal Investigator, Co-Principal Investigator, and Co-Investigator. He has chaired grant review panels for the NIH, the National Academies, and the Howard Hughes Medical Institute, and refereed papers for more than 50 national and international scientific journals. He has contributed to the training of nearly 150 MS and PhD graduates, 3000 pharmacists, and hundreds of undergraduate research students. His research interests are multidisciplinary and translational. They focus on cellular injury and cell death, and factors governing drug and chemical-induced injuries, including drug metabolism and nutrition. Approaches designed to translate basic discoveries to improve human health involve retrospective and prospective clinical investigation of human volunteers and patients, integrated in vivo models, cellular and molecular biology, pharmacokinetics, and synthetic chemistry. Specific areas of investigation include cell death by necrosis and apoptosis, the role of DNA damage in acute cell death, drug and chemical injury to the liver, nutrition and particularly obesity as overlooked factors in drug and chemical injury, drug biotransformation including by CYPs, and toxicity of drugs such as acetaminophen (paracetamol).At the University of New Mexico, Dr. Corcoran advised Health Sciences Vice President Jane Henney (FDA Commissioner 1998-00) as a member of her Health Sciences Leadership Council. He is Past President of the Society of Toxicology, a 7,000-member organization of academic, industry and government scientists practicing in the USA and over 60 foreign countries. He is a past Member of the Exposure and Human Health Scientific Advisory Board of the US Environmental Protection Agency, is Past Chair of the Executive Board of the Council of Scientific Society Presidents, and is a past member of the intergovernmental Scientific Advisory Committee on Alternative Toxicological Methods. He has contributed to Society positions having national and international impact, ranging from the best science for evidence-based safety legislation, to organizational ethics and governance. Dr. Corcoran has been a Fellow of the Academy of Toxicological Sciences since 2004. He has been a Delegate to the International Congress of Toxicology and member of the International Union of Toxicology Developing Countries Committee. He has contributed to the scientific direction of the American Society for Pharmacology and Experimental Therapeutics as a member of its Scientific Council, and served on the Research and Graduate Affairs Committee of the American Association of Colleges of Pharmacy. Dr. Corcoran's opinion is sought as an expert witness in toxic tort, product liability and other legal matters. He serves as Associate Editor of Toxicology and Applied Pharmacology [2002-date] and Editorial Board Member of the international journals Pharmacology and Toxicology [1992-2002] and Basic and Clinical Pharmacology and Toxicology [2002-date]. Past Editorial Board memberships include Toxicology Letters and the Journal of Toxicology and Environmental Health. During 5 years of service on the National Institutes of Health Alcohol-Toxicology 1 Study Section, he reviewed over 1000 NIH grant applications.

## Cory-Slechta,Deborah

**University of Rochester**

Dr. Deborah Cory-Slechta received her Ph.D. degree from the University of Minnesota in 1977 and worked as a junior staff fellow of the National Center for Toxicological Research beginning in 1979. She was appointed to the faculty of the University of Rochester Medical School in 1982 was appointed Chair of the Department of Environmental Medicine and Director of the NIEHS Environmental Health Sciences Center at the University of Rochester in 1998. From July 2000-July 2002, she was the Dean for Research and Director of the AAB Institute for Biomedical Sciences, a newly established post at the University and as such, became the first female dean in the history of the Medical School. From 2003-2007 she served as Director of the Environmental and Occupational Health Sciences Institute (UMDNJ/Rutgers) and Chair of the Department of Environmental and Occupational Medicine at the Robert Wood Johnson Medical School (UMDNJ). In 2007, she returned to the Department of Environmental Medicine at the University of Rochester School of Medicine where she serves as Professor. Her research has focused largely on environmental neurotoxicants as risk factors for behavioral disorders and neurodegenerative disease. Currently she has also begun to examine mixtures of neurotoxic chemicals and risk modifiers for effects of neurotoxicants, including factors such as stress and those related to low socioeconomic status as well. These research efforts have resulted in over 130 papers and book chapters to date. Dr. Cory-Slechta has served on numerous national research review and advisory panels, including

committees of the National Institutes of Health, the National Institute of Environmental Health Sciences, the Food and Drug Administration, the National Center for Toxicological Research, the Environmental Protection Agency, the National Academy of Sciences, the Institute of Medicine, and the Agency for Toxic Substances and Disease Registry, Centers for Disease Control. In addition, Dr. Cory-Slechta has served on the editorial boards of several journals including Neurotoxicology, Toxicology, Toxicological Sciences, Fundamental and Applied Toxicology, Neurotoxicology and Teratology, and American Journal of Mental Retardation. She has held the elected positions of President of the Neurotoxicology Specialty Section of the Society of Toxicology, President of the Behavioral Toxicology Society, and been named a Fellow of the American Psychological Association.

## Cox, Jr.,Louis Anthony (Tony)

**Cox Associates**

Tony Cox is President of Cox Associates (www.cox-associates.com), a Denver-based applied research company specializing in quantitative healthrisk assessment, causal modeling, probabilistic and statistical risk analysis, data mining, and operations research. Dr. Cox holds a Ph.D. inRisk Analysis (1986) and an S.M. in Operations Research (1985), both from M.I.T. He has an AB from Harvard University (1978) and is a graduate ofthe Stanford Executive Program (1993). He is a member of the National Academies' Board on Mathematical Sciences and Their Applications (BMSA),and is Honorary Full Professor of Mathematics at the University of Colorado at Denver, where he has lectured on biomathematics, health riskmodeling, computational statistics and causality. Dr. Cox is on the Faculties of the Center for Computational Mathematics and the Center forComputational Biology at the University of Colorado at Denver and is Clinical Professor of Preventive Medicine and Biometrics at the Universityof Colorado Health Sciences Center, where he has focused on uncertainty analysis and causation in epidemiological studies.Dr. Cox is Area Editor for Mathematical Modeling for Risk Analysis: An International Journal, is a co-founder and Area Editor of the Journal ofHeuristics, and is on the Editorial Board of the International Journal of Operations Research and Information Systems. He is an Edelman Laureate ofINFORMS, a member of the American Statistical Association (ASA), and a Fellow of the Society for Risk Analysis (SRA). He won the Society forRisk Analysis (SRA) Best Paper Awards in both 2002 and 2003 for work applying uncertainty analysis to evaluate public health risks and benefitsof animal antibiotics. In 2007, he won the Society of Toxicology's Outstanding Published Paper in Risk Assessment Award and the Society forRisk Analysis Outstanding Risk Practitioner Award. In 2008, his solution to a challenge on "Statistical Methods to Predict Clinical Response" wonan InnoCentive Award.Dr. Cox's most recent books are Risk Analysis of Complex and Uncertain Systems (Springer, 2009) and the Wiley Encyclopedia of Operations Researchand Management Science (Wiley, 2011), which Dr. Cox co-edited and contributed to. He has over a dozen U.S. patents on applications ofartificial intelligence, signal processing, statistics and operations research methods.

## DiBartolomeis,Michael

**California Department of Public Health**

Dr. Michael J. DiBartolomeis, PhD, DABT, has over 27 years of professional experience practicing public health and environmental protection in the public and private sectors. He currently directs the California Safe Cosmetics Program and the Occupational Lead Poisoning Prevention Program, in the California Department of Public Health. Prior to joining the health department, Dr. DiBartolomeis managed the Pesticide and Food Toxicology Program in Cal/EPA's Office of Environmental Health Hazard Assessment for more than 15 years where he was responsible for evaluating the impact of pesticides on human health and the environment. Dr. DiBartolomeis earned his doctorate degree in toxicology in 1984 from the University of Wisconsin, has been certified by the American Board of Toxicology since 1988, and has presented original research and scientific assessments in over 270 peer-reviewed publications, conference proceedings, government publications, and consultant reports. Dr. DiBartolomeis is currently or has served on numerous scientific panels, including for example: U.S. EPA's National Environmental Justice Advisory Council, Health and Research Subcommittee; U.S. EPA's Forum on State and Tribal Toxics Action, Chemical Management and Environmental Justice Subcommittees; American Cancer Society, Cancer & the Environment Team; California Governor's Task Force on Biotechnology; and the National Institute of Environmental Health Sciences (NIEHS) Special Emphasis Panels. His professional interests include reforming chemical management policy in the United States and internationally by integrating the principles of environmental justice and precaution into environmental decision-making, developing approaches and methods to identify and evaluate safer chemical alternatives, and applying prevention and precautionary practices to environmental and public health protection.

## Dourson,Michael

**Toxicology Excellence for Risk Assessment**

Dr. Dourson is the President of Toxicology Excellence for Risk Assessment (TERA). He has a PhD in toxicology from the University of Cincinnati in 1980 and is a Diplomate of the American Board of Toxicology (ABT). He has lead TERA's development of partnerships among diverse groups to address chemicals of high visibility, such as formaldehyde, perchlorate, chloroform, and soluble nickel, and cooperative ventures such as the Voluntary Children's Chemical Exposure Program, the International Toxicity Estimates for Risk database (available at Toxnet), and the Alliance for Risk Assessment. He also worked 15 years for EPA, holding several leadership roles and winning awards for joint efforts, such as the creation of EPA's Integrated Risk Information System. In 2003, he won the Society of Toxicology (SOT) Lehman award for major contributions that improve the scientific basis of risk assessment. In 2007, he was elected a Fellow of the Academy of Toxicological Sciences. In 2009, he won the International Society of Regulatory Toxicology and Pharmacology's International Achievement Award in recognition of his outstanding contributions nationally and internationally to the advancement of regulatory science. In 2009, he was also selected a Fellow for the Society for Risk Analysis (SRA) for substantial achievement in science relating to risk analysis and service to SRA.Dr. Dourson has co-published more than 100 papers on risk assessment methods, including methods for assessing risk in sensitive subgroups, on use of animal and human data in the assessment of risk, or on assessments for specific chemicals. He has also co-authored well over 100 government risk assessment documents, made over 100 invited presentations, and chaired well over 100 sessions at scientific meetings and independent peer reviews. He has been elected to multiple officer positions in the American Board of Toxicology, the Society of Toxicology (SOT), and the Society for Risk Analysis. In addition to numerous appointments on government panels, such as EPA's Science Advisory Board, he is also a media resource specialist in risk assessment for the SOT, member on the editorial board of several journals, and vice chair of the NSF International Health Advisory Board.

## Eastmond, David

**University of California - Riverside**

Dr. David A. Eastmond is a professor and chair of the Department of Cell Biology & Neuroscience at the University of California, Riverside. He received his B.S. and M.S. degrees from Brigham Young University in Provo, Utah and his Ph.D. from the University of California, Berkeley. From 1987 to 1989, he was served as an Alexander Hollaender Distinguished Postdoctoral Fellow at Lawrence Livermore National Laboratory. Shortly thereafter, Dr. Eastmond joined the faculty at UC Riverside where he is actively involved in research and teaching in the areas of toxicology and risk assessment. The research in Dr. Eastmond's laboratory focuses on the mechanisms involved in the toxicity and carcinogenesis of environmental chemicals. His research has centered on the metabolism and chromosome-damaging effects of various environmental chemicals including benzene, a widely used industrial chemical and environmental pollutant, and ortho-phenylphenol, a commonly used fungicide and disinfectant. Dr. Eastmond has served as the president of the Environmental Mutagen Society and as a Jefferson Science Fellow in the US State Department. He has also participated on a variety of review panels related to chemical mutagenesis, carcinogenesis and risk assessment including panels for the US Environmental Protection Agency, the US Food and Drug Administration, the International Programme for Chemical Safety, the International Agency for Research on Cancer, the Organisation for Economic Cooperation and Development, Health Canada and the International Working Group for Genotoxicity Testing. He currently serves as the chair of the Board of Scientific Counselors for the National Toxicology Program and as a member of the Carcinogen Identification Committee for the California Environmental Protection Agency.

## Emond,Claude

**University of Montreal**

Dr. Claude Emond is a clinical adjunct professor in the Department of Environmental and Occupational Health at the University of Montreal, Quebec, Canada and associated professor at the University du Québec à Montreal. He received a Ph.D. in Public Health (Toxicology and Human Risk Assessment option) in 2001 from the University of Montreal. From 2001 to 2004, Dr. Emond received grants from the NRC, a branch of the National Academy of Sciences (NAS), to perform postdoctoral studies for 2½ years at the U.S. Environmental Protection Agency (EPA) in North Carolina. At EPA, Dr. Emond's work focused on describing a developmental physiologically based pharmacokinetic (PBPK) model on dioxins. The research conducted by Dr. Emond's team led to recognition from EPA administration and a presentation of EPA's Scientific and Technological Achievement Award to the team. His research and consulting interests address problems in toxicology and focus on different chemicals, including polychlorinated biphenyls (PCBs), dioxins, flame retardants (polybrominated diphenyl ether [PBDE] and hexabromocyclododecane [HBCD]), bisphenol A, pyrethroid, and xenoestrogens. Dr Emond's research interests also focus on the development and the improvement of mathematical PBPK models to address and reduce the uncertainty for toxicology risk assessment in human health. Much of his research activities focus on the toxicokinetic and dynamic effects to further characterize the mode of action between chemicals and biological matrices for individuals or populations. He is also interested in occupational toxicology, mainly on the effects of organic solvents, modeling physiological changes in aging compared to younger workers, and nanotoxicology. Dr. Emond has also offered his expertise and extensive knowledge on various topics by participating as a peer-reviewer for Health Canada, as a reviewer of toxicological risk assessments associated with herbicide spraying operations, and as a consultant on several projects for U.S. universities and for private research institutes. He is President of an Endocrine Disruptor Review Work Group for the French Agency for Food, Environmental, and Occupational Health and Safety (ANSES). Dr. Emond has published many papers and is often invited to present his research at international meetings on persistent organic chemicals and nanotechnology. Taken as a whole, Dr. Emond's work contributes to the improvement of health, safety, and environmental assessment and regulations.

## Englehardt,James

**University of Miami**

Dr. James Englehardt, P.E., is Professor of Environmental Engineering at the University of Miami, appointed in 1992. Before receiving his Ph.D. in Civil/Environmental Engineering from the University of California, Davis, in 1993, Dr. Englehardt led research projects in physical-chemical processes for the manufacture of mineral filter media for the Manville Corporation (1983-1987). Prior to that (1978-1980), he supervised a laboratory and conducted field service projects in physicochemical treatment of water for the Western Filter Company, Denver CO. His research group actively develops predictive Bayesian methods for assessing chemical and pathogenic human health risks from available information, based on principles of growth, self-organization, and information theory. Methods are focused on providing rigorous assessments based on available information for regulatory and planning applications. In parallel work, his group is developing design concepts for net-zero water buildings that eliminate toxic chemical loading on the environment. Focus is on the development of physicochemical water treatment processes, socio-cultural acceptance, and real-time risk detection based on fluorescence spectra of the water, eliminating the step of chemical identification, using machine learning and evidence fusion. Awards include the Science Advisor's Award, U.S. Environmental Protection Agency (EPA), National Center for Environmental Assessment, Cincinnati; the Robert C. Barnard Environmental Science & Engineering Award for Advances in Risk Assessment, American Association for the Advancement of Science and EPA; and two University of Miami Eliahu I. Jury Awards for excellence in research. Dr. Englehardt serves on the Advisory Board, Leonard and Jane Abess Center for Ecosystem Science and Policy, University of Miami. Previously he served as Visiting Scientist, EPA National Center for Environmental Assessment, Cincinnati, OH, 2001, and Expert Panelist, Workshop, EPA National Center for Environmental Assessment, Models and Tools for Including Susceptibility, Immunity, and Secondary Spread into Microbial Risk Assessment, Cincinnati, OH, 2004. He has been nominated for the Board of Directors, Association of Environmental Engineering & Science Professors, 2009, and the National Academy of Sciences, National Research Council Committee on Restoration of the Greater Everglades Ecosystem, 1998.

## Ethridge,Shannon

**Texas Commission on Environmental Quality**

Shannon Ethridge has been a Toxicologist in the Toxicology Division of the Texas Commission on Environmental Quality (TCEQ) for 9 years. During that time as a regulatory toxicologist and risk assessor, she has worked on a great variety of environmental issue projects (e.g.,

remediation, chemical and baseline risk assessment, air permitting, air monitoring, combustion strategy, wildfires, and risk assessment guidelines), including many projects directly relevant to chemical risk assessment and the derivation of toxicity factors. For example, she has conducted dose-response assessments and derived toxicity factors (e.g., RfC and URF) for such data-rich chemicals as vinyl chloride, 1,1-dichloroethylene, and hydrogen chloride, and has participated in the review of many other chemical assessments. She was recently appointed as the Toxicity Factors Coordinator for the Toxicology Division. She had the opportunity to serve on the Federal Facilities Task Force for 2 years as the TCEQ human health risk assessor for the BWXT Pantex Nuclear Weapons facility. Shannon frequently interacts with the general public and answer questions they have about potential health effects from exposure to numerous environmental contaminants. She has participated in numerous public meetings, many of them contentious, where she communicated risk to the general public and other interested parties. She has given numerous presentations to TCEQ staff, the general public, other regulatory groups (both national and local), and other environmental professionals. As an example, she has given presentations on the potential for human health risk from emissions from oil and gas facilities in Texas, at numerous TCEQ staff training events, the TCEQ Environmental Trade Fair, a large neighborhood association meeting, an Air Pollution Prevention Workshop, and at the 2011 USEPA National Air Toxics Workshop. She was the second author on a poster entitled Practical Implementation of the Threshold of Concern and NOAEL-to-LC50 Ratio Factor Approach to Determine Acute Effects Screening Levels presented at the 2011 Society of Toxicology annual meeting. Shannon graduated from the University of Texas, School of Pharmacy with an M.S. in Pharmacy in 2001, and graduated summa cum laude with a B.S. in Biology from Texas State University in 1996. Shannon was certified as a Diplomat of the American Board of Toxicology in 2011. Prior to joining the TCEQ, she worked as a Research Associate for an identity genomics company.

## Fenner-Crisp, Penelope

**Independent Consultant**

Dr. Fenner-Crisp is currently a private consultant. She is the former Executive Director of the Risk Science Institute of the International Life Sciences Institute (ILSI), a global, non-profit, scientific organization dedicated to seeking scientific solutions to important public health issues related to food and nutrition, food safety, water quality, chemical safety and environmental health and assessment of human health and environmental risk. She received a B.S. in Zoology from the University of Wisconsin-Milwaukee, an M.A. and Ph.D. in Pharmacology from the University of Texas Medical Branch-Galveston and spent two years at Georgetown University Schools of Medicine and Dentistry as a post-doctoral fellow in Pharmacology-Morphology from the then-Pharmaceutical Manufacturer's Association Foundation. Dr. Fenner-Crisp's current areas of expertise include human health and environmental risk assessment, toxicology, science policy and its integration into regulatory decision-making and familiarity with environmental regulatory programs and practices, all of which are a continuation of her activities and responsibilities during her 22 years at EPA. Her current service on advisory committees and boards consists of membership on the Drinking Water Committee of the Science Advisory Board, OPPT's National Pollution Prevention and Toxics Advisory Committee and as an ad hoc member of the FIFRA Scientific Advisory Panel (February 2007) as well as a member of the board of GreenBlue, a Charlottesville, VA-based not-for-profit organization whose mission is to inspire a transformation in the design of human industry to achieve sustainability. She has served on the board of the American Board of Toxicology. She is a Charter member of the Society for Risk Analysis (SRA), having received its first Risk Practitioner's Award in 1996, the Capital Area Chapter of SRA, and a long-time member of the Society of Toxicology and its National Capital Area Chapter.

## Finkel, Adam

**University of Pennsylvania Law School**

Dr. Adam M. Finkel is one of the nation's leading experts in the evolving field of quantitative risk assessment and cost-benefit analysis (CBA), with 25 years of experience improving methods of analysis and making risk-based decisions to protect workers and the general public from environmental hazards. He is currently a Senior Fellow at the University of Pennsylvania Law School and Executive Director of the University-wide Penn Program on Regulation (http://www.pennreg.org); he is also a professor of environmental and occupational health at the University of Medicine and Dentistry of New Jersey (UMDNJ) School of Public Health. From 2004-2008, he was a Visiting Professor of Public and International Affairs at the Woodrow Wilson School at Princeton University. From 1995-2004 he was a senior executive at OSHA, where he led the development of final and proposed regulations on methylene chloride, 1,3-butadiene, chromium (VI), respiratory protection, and tuberculosis, pioneered OSHA's only "enforceable partnerships" to lower exposures to fiberglass, styrene, and refractory ceramic fibers, and later directed OSHA's enforcement and outreach programs in the Rocky Mountain states. Dr. Finkel has pioneered various methodological improvements in risk assessment and CBA to make it a better instrument to highlight uncertainty and interindividual variability, and thereby promote reasoned and precautionary decisions. He served on both of the National Academy of Sciences committees convened to review EPA's risk assessment methods (the "Blue Book" circa 1995 and the "Silver Book" circa 2008). In addition to the substances he helped regulate at OSHA, he has extensive experience on the following toxic substances, among others: Manganese, glutaraldehyde, carbon disulfide, trimelletic anhydride (risk assessments while at OSHA); Daminozide (Alar) and its metabolites (expert witness for CBS *60 Minutes* in its successful defense of a product disparagement lawsuit; author of a 1995 journal article that was among the first Monte Carlo analyses of a risk-risk comparison); Beryllium (advocate at OSHA for providing medical monitoring to OSHA inspectors; expert witness in several class-action suits for monitoring); Perchloroethylene (consultant to the Philadelphia Department of Public Health in its 2010 decision to control Perc in dry cleaning); 1-bromopropane (ditto; nominated 1-BP for carcinogenicity testing by the NTP in 1999). Dr. Finkel has an Sc.D. in environmental health sciences from the Harvard School of Public Health, a master's degree in public policy from Harvard's John F. Kennedy School of Government, an A.B. in biology from Harvard College, and is a Certified Industrial Hygienist. He recently received the David P. Rall Award from the American Public Health Association for "a career in advancing science in the service of public health protection."

## Foley, Rosanne

**EI DuPont de Nemours**

Dr. Rosanne Foley received her B.S. in Chemistry 1983 and Ph.D. in Chemistry from the University of Maryland, College Park (1988). Since joining E.I. DuPont de Nemours in 1990, Dr. Foley has held numerous positions in the area of chemical safety assessment. In 2006 Dr. Foley relocated to Europe where she led the Registration and Regulatory Affairs Organization for DuPont Crop Protection Products in Europe, Middle East and North Africa. During that time, she served as a member of the Policy Steering Team for the European Crop

Protection Association. In 2009, she returned to DuPont's Haskell Global Centers for Human Health and Environmental Sciences where she leads the Chemical Assessment Program supporting EU REACh. Dr. Foley is currently Manager of Global Risk Assessments and Communications. She leads group of toxicology and risk assessment professionals responsible for regulatory-technical expertise in support of global health and environmental product stewardship and regulatory issues. She is currently a member of the ILSI-HESI Risk21 initiative, the Society for Risk Analysis, and the International Society of Exposure Science.

## Foster, William Michael

**Duke University Medical Center**

Dr. Michael Foster is a research professor in the Department of Medicine in the Division of Pulmonary, Allergy and Critical Care Medicine, at the Duke University Medical Center. He is a faculty member of the School of Medicine and also Directs the Inhalation Facility Core of the Department that provides technology and exposure facilities for small animal models and human laboratory studies. Dr. Foster is currently a member of the EPA CASAC committee for ozone. He serves on several external advisory boards for Federally supported, extramural health effects research, and during 2007 and 2008 he served on the National Academies committee to evaluate morbidity and mortality risk from tropospheric ozone. Dr. Foster has memberships within the American Physiologic Society, and the Society of Toxicology. He is the author or co/author of over 90 journal articles and book chapters that focus on the pulmonary system and/or environmental health. His research interests, and in a sense hallmarks of his scientific career and accomplishments, encompass a paradigm that links cardio-pulmonary injury to air pollutant exposure using established data bases of epidemiological investigations and his own laboratory-based studies on humans and animal models. Dr. Foster's laboratory is supported through extramural funding sources of the NIH and encompasses 3 separable areas of research: environmental triggers of exacerbation for obstructive airway disease, vaccine development, and host (genetic) factors of susceptibility to oxidant lung injury. The end points of this research enhance understanding of health risk from exposure to airborne toxins, and the interdependence between therapy, health risk, and establishment of regulatory standards for air quality that reduce poor health outcomes from exposure.

## Gentry,Robinan

**ENVIRON International Corporation**

Dr. Robinan Gentry, PhD, DABT, is currently a Principal Consultant and senior toxicologist with ENVIRON International Corporation with over 20 years of experience in toxicology and quantitative risk assessment. She received her PhD in toxicology in 2008 from Utrecht University and her MS (1992) and BS (1987) degrees in toxicology from the University of Louisiana in Monroe. Over her career, she has been a principal investigator or contributing author for numerous risk assessments for both government and industry. The purpose of many of these assessments has been to incorporate innovative quantitative approaches in the determination of acceptable levels of exposure of humans to chemicals in the environment, in pharmaceuticals, and in consumer products. She is a published author in the area of risk/safety assessment and the development of physiologically based pharmacokinetic (PBPK) models and their application into both the cancer and noncancer risk assessment processes. She has also been involved in projects using these types of models to investigate human variability by age and gender and the potential impact of this variation on risk assessment. Her recent research interests include projects that are aimed at understanding the mode of action of adverse effects in animals and the implications to human health. In addition, she is involved in the development of innovative approaches that rely upon in vitro data and projects to investigate how these data may be incorporated into the risk assessment paradigm. She is a member of the Society of Toxicology, is serving in her third year as an officer in the Risk Assessment Specialty Section of the Society of Toxicology and is the 2011-2012 President.

## Gibb,Herman

**Tetra Tech Sciences**

Dr. Herman Gibb is President of Tetra Tech Sciences (Sciences), an operating unit of the Tetra Tech Corporation specializing in health risk assessment. Dr. Gibb received his PhD in epidemiology from the Johns Hopkins University in 1989, his M.P.H. in environmental health in 1974 from the University of Pittsburgh and his B.S. in pre-medicine from the Pennsylvania State University in 1970. Since joining Sciences in 2004, Dr. Gibb has provided expert consultation to a variety of international and national clients. Dr. Gibb has been an invited peer reviewer of health risk assessment documents prepared by the U.S. Environmental Protection Agency, the U.S. Food and Drug Administration, the National Institute of Occupational Safety and Health, Health Canada, and the World Health Organization. He is a Scientific Advisor on Risk Assessment for the European Commission. He chairs the World Health Organization's Foodborne Epidemiology Reference Group's (FERG) Chemical Task Force and is a member of FERG's Country Studies and Source Allocation Task Forces. Before joining Sciences, Dr. Gibb served in the positions of Associate Director for Health and Assistant Center Director at the National Center for Environmental Assessment of the U.S. Environmental Protection Agency. He was the Project Officer for EPA's cooperative agreements with the World Health Organization. He directed EPA's assessment of inhalation exposures and potential health risks to the general population that resulted from the collapse of the World Trade Center Towers. He is an author of EPA's Guidelines for Carcinogen Risk Assessment and EPA's Risk Assessment Principles and Practices. He was the recipient of the EPA's Scientific and Technological Achievement Award for his study of lung cancer mortality and clinical irritation among chromate production workers and the recipient of the EPA's Gold Medal for Exceptional Service for his work on the drinking water standard for arsenic. His study of chromate production workers utilized one of the most extensive industrial hygiene data bases ever assembled in its analysis of the lung cancer risk from hexavalent chromium. The study formed the basis of OSHA's Permissible Exposure Limit (PEL) on Hexavalent Chromium. He is an author of the World Health Organization's Environmental Health Criteria Document on Principles for the Assessment of Risks to Human Health from Exposure to Chemicals and the World Health Organization's Environmental Health Criteria Document on Arsenic and Arsenic Compounds. Dr. Gibb was a member of White House Interagency Committees on Mercury and on Risk Assessment. He was an author of EPA's Mercury Research Strategy. He is a member of the Presidential Advisory Board on Science, Engineering, and Health at the Ana G. Mendez University System in San Juan, Puerto Rico, and the Advisory Committee of the United States Transuranium and Uranium Registry. He belongs to the International Society of Environmental Epidemiology. He is a Professorial Lecturer in Environmental and Occupational Health and Adjunct Associate Professor of Pharmacology and Physiology at the George Washington University Medical Center. Dr. Gibb received the 2011 Practitioner of the Year Award from the Society for Risk Analysis.

## Ginsberg,Gary

**Connecticut Department of Public Health**

Dr. Ginsberg is a toxicologist at the Connecticut Dept. of Public Health within the Section of Environmental and Occupational Health Assessment. He has responsibility for human health risk assessments conducted in the state. Dr. Ginsberg serves as adjunct faculty at the Yale School of Public Health and is an Assistant Clinical Professor at the University of Connecticut School of Community Medicine. He served on the National Academy of Science Panels on Biomonitoring (produced Human Biomonitoring, NAP Press, 2007) and Improving USEPA risk methods (produced Science and Decisions, NAP Press, 2009). He is a member of US EPA's Science Advisory Board and has served on the Children's Health Protection Advisory Committee (CHPAC). Dr. Ginsberg is a recipient of a fellowship from the Oak Ridge Institute for Science and Education (ORISE) to collaborate with USEPA, NCEA on risk and susceptibility projects. Dr. Ginsberg received a Ph.D. in toxicology from the University of Connecticut and was a post-doctoral fellow in carcinogenesis/mutagenesis at the Coriell Institute for Medical Research. Dr. Ginsberg's toxicology experience has involved a variety of settings: basic research, teaching, working within the pesticide and consulting industries, and now working in public health. He has published in the areas of toxicology, carcinogenesis, physiologically-based pharmacokinetic modeling, inter-individual variability, genetic polymorphisms, and children's risk assessment. Dr. Ginsberg is also co-author of a book on toxics for the lay public, "What's Toxic, What's Not" Berkley Books, 2006.

## Goble,Robert L.

**Clark University**

Dr. Goble is Research Professor in Environmental Science and Policy (ES&P) and Adjunct Professor of Physics at Clark University. From 2006 through 2008 he was the Director of The George Perkins Marsh Institute, Clark's interdisciplinary research center concerned with human-environment interactions. Professor Goble received a B.A. with honors in physics from Swarthmore College in 1962 and a Ph.D. in Physics from the University of Wisconsin in 1967; he worked for nine years thereafter in theoretical high energy particle physics at Minnesota, Yale, Utah, and Montana State. Beginning in 1974 he turned his interests increasingly to technology assessment and hazards, which brought him to Clark University in 1976. Dr. Goble's current research focuses on developing a risk, vulnerability and uncertainty perspective on environmental exposures and health, along with a focus on citizen participation and environmental justice. Most recently, supported in part by an Oak Ridge Institute for Science and Education faculty research fellowship he has been studying generic methods for more effective assessments of risks from toxic chemicals, including more effective use of the IRIS data base. His work has also included studies of implications of high uncertainty supported by NSF and WHO and studies of the implications of interindividual variability among people for assessing exposures and dose response relations supported by the US EPA, the Department of Energy, and by the state of California. Much of this work has been performed with his colleague Dale Hattis at the Marsh Institute; among these are studies of the age dependence of exposures and risk, studies of the implications of mutagenic and non-mutagenic modes of action for cancer dose/response relations, and studies of implications of interindividual variability for non-cancer dose response. He is part of a group at Clark performing exposure assessments in the National Children's study. Previously, Dr. Goble has studied models for short range and regional air pollution and was lead author of the exposure volume in EPA's Critical Assessment Document for Acid Deposition. Over the past 20 years Dr. Goble has also worked on a series of projects relating to environmental justice, including work with several Native American communities exposed to chemical and radiation hazards and work in urban neighborhoods in Worcester. An important aspect of this work has been cooperation between scientists and non-scientists in risk assessment; these projects have been supported by the National Institutes for Health the EPA, and the NSF. Dr. Goble has served on advisory panels for the United Nations, for the National Academy of Sciences, and the U.S. EPA Science Advisory Board, Committee on Exposures and Human Health. He has assisted local community supervision of several major health studies. As part of his research Dr. Goble has been a principal mentor of many MA and several Ph.D. students in Physics and in the Environmental Science & Policy Program.

## Goeden,Helen

**Minnesota Department of Health**

Dr. Goeden is a principal toxicologist and human health risk researcher for the Health Risk Assessment Unit at the Minnesota Department of Health (MDH). She received her Ph.D. degree in Environmental Health/Toxicology at the University of Cincinnati and a B.S. in Biological Sciences at the College of St. Scholastica, Minnesota. She is currently the scientific lead for the Drinking Water Contaminants of Emerging Concern program. Responsibilities include: toxicological assessment of a wide range of environmental contaminants (e.g., industrial, agricultural, pharmaceutical, consumer product); development of state-wide health-based criteria for groundwater and drinking water; leadership role in state and federal workgroups regarding the development, improvement, and integration of risk assessment methods and public health policies that are protective of sensitive or more highly exposed populations (e.g., infants and children); and case-by-case health risk assessments or research projects specific to emerging environmental health threats (e.g., perfluorochemicals). Dr. Goeden has served on the Water Quality Association Toxicological Review Committee and currently serves as a member of the NSF International Health Advisory Board and the Federal State Toxicology and Risk Assessment Committee (FSTRAC) planning committee. She has lectured on toxicology and risk assessment at UM Schools of Public Health. She is a member of the Society of Toxicology and was a founding member of the national Dose-Response Specialty section of the Society for Risk Analysis.

## Haney, Joseph

**Texas Commission on Environmental Quality**

Joseph "Kip" Haney has been a Senior Toxicologist in the Toxicology Division of the Texas Commission on Environmental Quality (TCEQ) for over 13 years. During that time as a regulatory toxicologist and risk assessor, he has worked on a great variety of environmental issue projects (e.g., remediation, chemical and baseline risk assessment, air permitting, combustion strategy, wildfires, risk assessment rules and guidelines), including many projects directly relevant to chemical risk assessment and the derivation of toxicity factors. For example, he has conducted dose-response assessments and derived toxicity factors (e.g., RfC, RfD, URF, SFo) for such data-rich chemicals as benzene, formaldehyde, 1,4-dichlorobenzene, nickel, and methylene chloride, and has also derived toxicity factors for dozens of data-poor chemicals.

Joseph also helped develop the Guidelines to Develop Effects Screening Levels (ESLs), Reference Values, and Unit Risk Factors (2006) and the current TCEQ draft update Guidelines to Develop Inhalation and Oral Cancer and Non-Cancer Toxicity Factors (2011), which draw on USEPA guidance and other sources to outline the procedures used to develop inhalation (acute and chronic) and oral (chronic) toxicity factors. He has used his technical expertise to prepare technical comments to USEPA's SAB on important chemical risk assessments such as dioxin, arsenic, formaldehyde, and hexavalent chromium. Joseph also presents scientific posters at toxicology conferences (e.g., at Society of Toxicology 2012: Development of a Unit Risk Factor for Nickel and Inorganic Nickel Compounds Based on an Updated Carcinogenic Toxicity Assessment; at the 30th International Symposium on Halogenated Persistent Organic Pollutants: Regulatory Implications of USEPA'S Draft Oral Slope Factor and Reference Dose for Dioxin), and prepares or co-authors articles to be published in scientific peer-reviewed journals (e.g., J.T. Haney, D.D. McCant, R.L. Sielken, et al. Development of a Unit Risk Factor for Nickel and Inorganic Nickel Compounds Based on an Updated Carcinogenic Toxicity Assessment. Accepted by Reg. Tox. Pharmacol. http://www.sciencedirect.com/science/article/pii/S027323001100198X). One such article received a Best Paper Award Honorable Mention by the Risk Assessment Specialty Section at the 49th Annual Society of Toxicology Conference (R.L. Grant, J. Haney, A.L. Curry, M. Honeycutt. Development of a Unit Risk Factor for 1,3-Butadiene Based on an Updated Carcinogenic Toxicity Assessment. Risk Analysis 29: 1726-1742, 2009). Joseph graduated from the University of Texas School of Public Health with an M.S. in Environmental Science/Toxicology in 1997, and graduated summa cum laude with a B.S. in Biology (pre-medicine) from the University of Houston in 1990. Prior to joining the TCEQ, he worked for a prestigious civil litigation law firm which handled a variety of cases including toxic torts.

## Harris, Cynthia

**Florida A & M University**

Dr. Harris attended the University of Kansas, where she received a B.A. (Honors' degree) in biology (1978) and a M.A. in genetics (1981). She received her Ph.D. in the biomedical sciences from Meharry Medical College in 1985, with concentration in the areas of nutritional biochemistry and toxicology. Dr. Harris was awarded a postdoctoral fellowship in the Interdisciplinary Programs in Health of the Harvard School of Public Health, where she conducted research regarding the effects of heavy metals on pulmonary function and environmental risk assessment. She is a Diplomat of the American Board of Toxicology (DABT). From 1990-1996, Dr. Harris served as a staff toxicologist and branch chief with the Agency for Toxic Substances and Disease Registry, a sister agency of the Centers for Disease Control and Prevention, in Atlanta, Georgia. Dr. Harris was the first African American branch chief of the Agency for Toxic Substances and Disease Registry. As branch chief of the Community Health Branch, she was responsible for the administration and management of staff who conducted environmental health assessments, at the request of individual citizens and community groups across the nation. In 1996, Dr. Harris accepted the position of Director of the Institute of Public Health at Florida A&M University. Since her tenure, she has been actively engaged in the general planning and development of the MPH program. The 1997 Florida State Legislature approved and appropriated funding to support the MPH program and the MPH program received full, maximum accreditation for its initial review (2000-2005). Dr. Harris has served on numerous committees and panels, which includes membership on the Board of Directors for the Florida Public Health Association, Chair of the Florida Public Health Partnership Council on Stroke, member of the Pregnancy Mortality Review Board, member of the Florida Sickle Cell Task Force, member of the American Public Health Association, member of the editorial board of the Harvard Journal of Public Health, reviewer for the Journal of Environmental Health, and board member for the Panhandle Chapter of the Florida March of Dimes. She has also provided a review for the Food and Nutrition Board of the National Academy of Sciences. She is a Full Member of the Society of Toxicology and was appointed by the Secretary of the U.S. Department of Health and Human Services to the Agency for Toxic Substances and Disease Registry Board of Scientific Counselors. In addition, she has served on numerous grant reviews for several federal agencies such as CDC, NIOSH, NIEHS and HRSA. She was also a panel member for the IOM Committee on the Gulf War and Health and was recently appointed by Congresswoman Donna Christensen to the Congressional Black Caucus Homeland Security Advisory Board. In December of 2004, Dr. Harris was appointed to the Council on Education for Public Health (CEPH) Board of Councilors for a three year term. CEPH is the national accrediting agency for all public health programs and schools of public health

## Hartsook, Renee

**Underwriters Laboratories**

Dr. Renee Hartsook is a Senior Toxicologist with Underwriters Laboratories based in San Jose, California. She is a board certified toxicologist with more than 12 years of experience in toxicology. Dr. Hartsook received her B.S. in Environmental Toxicology (1993) and her Ph.D. in Pharmacology and Toxicology (2000) from the University of California, Davis. Her dissertation was on the synergistic pulmonary toxicity of ambient air pollutants and received the Mary Amdur Award from the Inhalation and Respiratory Specialty Section of the Society of Toxicology.Dr. Hartsook has extensive experience evaluating environmental chemicals, including developing acute and chronic reference exposure levels for the California EPA Office of Environmental Health Hazard Assessment on the "Hot Spots" program. She has worked in the consumer products, medical device and pharmaceutical industries where she was responsible for the evaluation of human health risks associated with these products. Her current work involves developing sustainability standards for products and a key focus for Dr. Hartsook is the issue of offshoring of toxic substances. She believes that a sustainable product is one that does not shift the risk to another population and this is a critical issue of environmental justice. An active member of the Society of Toxicology and the Society of Toxicology and Environmental Chemistry, Dr. Hartsook's research focuses on developing methods for assessing risks from mixtures of volatile organic compounds (VOCs) encountered in indoor air where reference exposure levels have not been established for the component VOCs.

## Hartwig, Andrea

**Karlsruhe Institute of Technology (KIT)**

Dr. Andrea Hartwig is Full Professor of Food Chemistry and Toxicology at the Karlsruhe Institute of Technology (KIT) in Karlsruhe, Germany. She received her Diploma in Chemistry in 1984, finished 1987 her PhD thesis and 1996 her Habilitation in Biochemistry at the University of Bremen, Germany. In 1998 she became Professor for Food Chemistry at the University of Karlsruhe (TH) and 2004 Full Professor for Food Chemistry at the Technical University of Berlin. Since 2010 she joined the Karlsruhe Institute of Technology (KIT) as Chair for Food Chemistry and Toxicology. Dr. Hartwig has many years research experience in identifying modes of action of carcinogens, especially carcinogenic metal compounds. The main research activities focus on the impact of carcinogenic metal compounds, essential trace elements and bioactive food ingredients on genomic stability, with special emphasis on DNA damage induction and effects on DNA repair, gene

expression, cell cycle control and tumor suppressor functions. Special attention is given to interactions of toxic metal ions with so called zinc finger proteins involved in DNA repair and gene expression, which appears to be one main mechanism of metal carcinogenicity. Further research focuses on the toxicology of nanomaterials, particularly metal-based nanoparticles. She is author of about 155 scientific publications and member of several boards of international journals. At present, she is Chair of the German Society for Research on DNA Repair. Furthermore, Dr. Hartwig has many years experience in toxicological risk assessment. Since 2007 she is Chair of the German DFG Senate Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (MAK Commission) and member of the Scientific Committee on Occupational Exposure Limits (SCOEL). Also, she has served as an Expert for the European Food Safety Authority (EFSA) and is Vice Chair of the scientific advisory board of the Federal Institute for Risk Assessment (BfR).

## Hattis, Dale

**Clark University**

Dr. Dale Hattis is Research Professor with the George Perkins Marsh Institute at Clark University. For the past thirty six years he has been engaged in the development and application of methodology to assess the health, ecological, and economic impacts of regulatory actions. His work has focused on approaches to incorporate interindividual variability data and quantitative mechanistic information into risk assessments for both cancer and non-cancer endpoints. Recent research has explored PBPK-based dosimetry for chlorpyrifos based on observations of blood levels in pregnant women and their newborn infants, possibilities for the use of new in vitro gene expression and similar measurements as contributors to risk assessments, quantitative analysis of uncertainties for cancer and non-cancer health risks of dioxin, and age-related differences in sensitivity to carcinogenesis and other effects. He is a leader in efforts to replace the current system of uncertainty factors with distributions based on empirical observations. He has been a member of the Environmental Health Committee of the EPA Science Advisory Board, and for several years he served as a member of the Food Quality Protection Act Science Review Board. He has also served as a member of the National Research Council Committee on Estimating the Health-Risk-Reduction Benefits of Proposed Air Pollution Regulations. He has been a councilor and is a Fellow of the Society for Risk Analysis. Recently (12/11) he received the Society's Distinguished Educator award. He holds a Ph.D. in Genetics from Stanford University and a B.A. in biochemistry from the University of California at Berkeley.

## Hauser, Russ

**Harvard School of Public Health**

Dr. Russ Hauser's research focuses on the health risks of exposure to environmental chemicals that alter human development and reproductive function through disruption of endocrine signaling. Dr. Hauser is the Frederick Lee Hisaw Professor of Reproductive Physiology at the Harvard School of Public Health and Professor of Obstetrics, Gynecology and Reproductive Biology at Harvard Medical School. Dr. Hauser, in collaboration with physicians from the Massachusetts General Hospital, Harvard Medical School, is studying the effects of bisphenol A, phthalates, parabens and chlorinated chemicals on male and female reproductive health. He is also conducting a prospective cohort study on children in Chapaevsk, Russia, where he is investigating the relationship of exposure to dioxins and dioxin-like compounds with growth and pubertal development. Dr. Hauser served on the National Research Council, National Academies committee that prepared the report, Phthalates and cumulative risk assessment: The tasks ahead. He served on two committees of the Institute of Medicine, National Academies, on Gulf War and Health and one committee on Veterans and Agent Orange, Update 2010. Dr. Hauser is a member of two U.S. EPA Science Advisory Boards, Exposure and Human Health Committee (EHHC) and the Dioxin Review Panel. He is serving on the U.S. Consumer Product Safety Commission's Chronic Hazard Advisory Panel (CHAP) examining the effects of phthalates on children's health. Dr. Hauser is an Advisory Board member of Environmental Health Perspectives, Journal of the National Institute of Environmental Health Sciences. He is a member of the Environmental Health Sciences Review Committee for the National Institute of Environmental Health Sciences. He was a member of The Endocrine Society's Endocrine Disruptors Task Force. Dr. Hauser has served as the Chair of the Environment and Reproduction Special Interest Group, American Society for Reproductive Medicine. He received an M.D. from Albert Einstein College of Medicine and an M.P.H. and Sc.D. from the Harvard School of Public Health where he completed a residency in occupational medicine. He is board certified in occupational medicine.

## Hays,Sean

**Summit Toxicology**

Dr. Sean Hays is the President and founder of Summit Toxicology, a toxicology and risk assessment consulting firm headquartered in Colorado, and is Assistant Clinical Professor in the Colorado School of Public Health at the University of Colorado. Sean received a B.S. in biomedical engineering from Texas A&M University, an M.S. in Physiology from the University of Vermont, an M.S. in chemical engineering from Colorado State University, and a Ph.D. in Toxicology from the University of Utrecht. Sean has over 18 years of experience, where he specializes in conducting exposure assessments, deriving acceptable exposure limits (i.e., reference doses and reference concentrations, cancer slope factors, occupational exposure limits, and minimal risk levels), and developing pharmacokinetic (PK), physiologically based pharmacokinetic (PBPK), and pharmacodynamic (PD) models for drugs and chemicals. Dr. Hays is also regarded as a leader in the field of interpreting human biomonitoring data. Sean has served as President of the Biological Modeling Specialty Section of the Society of Toxicology and President of the Industry Advisory Board for the Colorado State University School of Biomedical Engineering.

## Heine,Lauren

**Clean Production Action (non-profit)**

January 2012Dr. Lauren Heine applies principles and practices from green chemistry, green engineering, multi-stakeholder collaboration and design for the environment for sustainable business practices. She co-authored the Green Screen for Safer Chemicals, a method for comparative chemical hazard assessment currently used by a growing number of large manufacturers of products ranging from chemicals to electronics, apparel and footwear. She also co-authored the university textbook, Introduction to Environmental Engineering 3rd ed. into which she integrated sustainability and green design concepts. For the OECD, she co-authored the policy report Policy Principles for Sustainable Materials Management. Lauren serves on the California Green Ribbon Science Panel and works closely with the USEPA Design for the Environment Program (DfE) to facilitate stakeholders in the development of DfE Criteria for Safer Chemicals and the DfE Alternatives

Assessment Criteria for Hazard Evaluation. She also co-chairs the buyers tool development subcommittee for Wal-Mart's Chemical Intensive Products Network. From 2003-2007, she led the development of CleanGredients™, a web-based information platform for identifying greener chemicals in partnership with DfE. Lauren co-founded the Zero Waste Alliance in Portland, OR. Prior to that, Lauren was a Fellow with the American Association for the Advancement of Science in the Green Chemistry Program at the US EPA and taught Organic Chemistry labs at Bowdoin College. Lauren publishes and speaks frequently on green chemistry metrics, alternatives assessment and science-based multi-stakeholder processes. Lauren earned her doctorate in Civil and Environmental Engineering from Duke University.

## Holladay,Steven

**University of Georgia**

Dr. Holladay received his Ph.D. degree in toxicology from North Carolina State University in 1989. His post-doctoral studies were focused in developmental immunotoxicology at the National Institute of Environmental Health Sciences, with a joint appointment in the laboratories of Dr. Jerry Heindel (Developmental and Reproductive Toxicology) and Dr. Mike Luster (Immunotoxicology). He then held faculty appointments at North Carolina State University, Virginia Tech, and presently the University of Georgia, where he serves as Head of the Anatomy and Radiology Department in the College of Veterinary Medicine. Dr. Holladay served as editor for the textbook Developmental Immunotoxicology, published by CRC Press in 2005, and has published 136 peer-reviewed manuscripts. His research presently focuses on mechanisms by which developmental exposure to environmental contaminants may increase risk of immunologic disease later in life.

## Honeycutt,Michael

**Texas Commission on Environmental Quality**

Dr. Honeycutt is the director of the Toxicology Division of the Texas Commission on Environmental Quality (TCEQ). He has been employed by the TCEQ since 1996 and has managed the division of 13 toxicologists since 2003. His responsibilities include overseeing health effects reviews of air permit applications, overseeing the review of the results of ambient air monitoring projects, and overseeing the reviews of human health risk assessments for hazardous waste sites. Dr. Honeycutt spearheaded the updating of TCEQ's Effects Screening Levels (ESLs), or toxicity factors for chemicals. The current TCEQ ESL derivation procedure has been through two independent external scientific peer reviews and multiple rounds of public comment (http://www.tceq.texas.gov/toxicology/esl/guidelines/about.html). Dr. Honeycutt serves as a technical resource for TCEQ management and staff on issues concerning air and water quality, drinking water contamination, and soil contamination. He also serves as an expert witness in public and state legislative hearings, participates in public meetings, and has conducted hundreds of media interviews. Dr. Honeycutt is an adjunct professor at Texas A&M University, has published numerous articles in the peer-reviewed literature, serves or has served on numerous external committees, and has provided invited testimony at Congressional hearings.

## Hood,Carol

**The Clorox Company**

Dr. Carol Hood is an Immunotoxicologist for the Product Safety & Regulatory Compliance division within Research & Development at the Clorox Company. Carol has degrees in Chemistry and Microbiology with a BS in Biology and PhD in Immunology from the University of California Davis. Her career has focused on method development for determining environmental tobacco smoke exposure profiles in bio-fluids using nuclear magnetic resonance, immunotoxicology assessments for drug development and laboratory management. Carol's training and experience as a developmental immunotoxicologist in the area of biomarkers and susceptible population exposures has led to her current responsibilities at the Clorox Company which include product assessments for occupation and public health safety, bio-monitoring and green chemistries. For the past year Carol has been the co-chairman for CSPA (SAC) Green Chemistry Task Force and has recently joined the CSPA Air Quality Committee and Task Forces as a committee member. In addition she is providing guidance as an Immunotoxicologist for American Cleaning Association in their current Risk Assessment: "Hazard Screening Analysis of the Asthmagenic Potential of Selected Cleaning Product Ingredients TERA Report".

## Jaeger,Calvin

**Sandia National Laboratories**

Dr. Calvin Jaeger is a member of the technical staff at Sandia National Laboratories in Albuquerque, New Mexico, where he has worked for over thirty years. His R&D activities have spanned a wide range of areas from basic fundamental research in electrochemical/battery systems, to nuclear and chemical nonproliferation and security, risk analysis, and most recently homeland security and critical infrastructure protection. Dr. Jaeger is nationally recognized for his contributions to the securing of this nation's critical infrastructure (CI). He is one of the primary developers of Sandia's security risk assessment tools [RAM-CF (chemical facilities), RAM-C (communities), RAM-E (energy systems), RC RAM-W and ARAM-W (water utilities) and RAM-CI (critical infrastructure)]. He has been involved in the modeling, simulation and analysis of many complex systems including large chemical/petrochemical facilities, water systems, dams, energy systems, air traffic control facilities, and nuclear facilities including power plants, disposition, storage and transport. In late 2000, Dr. Jaeger led the development of a security risk assessment approach for the chemical/petrochemical industry (RAM-CF) which involved considerable interactions with Federal, State and local agencies, the chemical associations and companies, and other key stakeholders. RAM-CF is an important security assessment tool now being used within the chemical/petrochemical industry. Dr. Jaeger participated in the DHS RAMCAP chemical sector working group which developed a screening approach and a security vulnerability assessment (SVA) tool for chemical manufacturing, petroleum refineries and LNG terminals and was the basis for 6 CFR 27, Chemical Facility Anti-Terrorism Standards (CFATS). Dr. Jaeger was a member of a DHS Expert Panel on Critical Infrastructure Risk Management and also a DHS review panel for Risk, Economics and Operations Research of Terrorism and All Hazards research proposals. He has been a member of several national standards committees involving risk and resilience, including one on RAMCAP Standard for Risk and Resilience Management of Water and Wastewater Systems and another on Organizational Resilience Maturity Model. Dr. Jaeger has evaluated the risk for a wide range of critical facilities, both in the U.S. and internationally, with regard to disruption of missions, processes and potential chemical hazards to the environment from a wide range of threats. He participated in a project for DHS's Chemical Security Analysis Center to characterize chemical processes involving selected toxic inhalation hazards and to evaluate possible gaps on ways to help reduce the risk from these chemicals. Dr. Jaeger has also supported the NRC in assessing some of

their licensed facilities with respect to CFATS regulations for on-site hazardous chemicals and he supported a project for the U.S. Air Force to identify potential hazards to selected critical facilities from toxic industrial chemicals. Dr. Jaeger received a BS in Chemistry from Kansas State University, an MS in Chemistry from the University of Texas at El Paso, and a PhD in Physical Chemistry from the University of Texas at Austin. Dr. Jaeger was awarded a Fulbright-Hays Fellowship to study photo-electrochemistry at the Fritz Haber Institute der Max Planck Gesellschaft in Berlin, Germany. He has published over 160 technical papers and has 5 copyrights. Dr. Jaeger has been an invited speaker/participant at many national and international conferences and technical working groups. He served in the Active Army and Army Reserve and retired in 2004 as a Brigadier General.

## Juberg,Daland

**DowAgrosciences LLC**

Dr. Daland Juberg is the North American Leader of the Human Health Assessment group within the Regulatory Sciences and Government Affairs function of Dow AgroSciences (Indianapolis, IN). Dr. Juberg received his B.A. in biology from Wittenberg University (1983), his M.S. in environmental health sciences from the University of Michigan (1984) and his PhD in toxicology from the University of Michigan (1992). Dr. Juberg has extensive experience in chemical evaluation and environmental health issues with application to human health risk assessment including air toxics work, occupational and industrial hygiene support, environmental assessment and remediation, and applied and regulatory toxicology. The combination of practical field experience in environmental monitoring (air, water, soil), in conjunction with training in environmental health and toxicology, has allowed him to contribute to both private and public sectors in peer-review work involving a broad range of chemical and environmental health assessments (e.g., metals, PCBs, DDT, asbestos, pesticides, ozone, phthalates). Dr. Juberg has participated at the state (e.g., regulatory reform, risk-based initiatives, air toxics) and national (e.g., National Ambient Air Quality Standards review, susceptibility of children to environmental chemicals, environmental estrogens) level on topics of public interest. He has served on and chaired numerous panels and committees including the Society of Toxicology's Regulatory Affairs and Legislative Assistance Committee, Congressional Task Force, TSCA Task Force, Communications Committee and is the VP Elect of the Regulatory and Safety Evaluation Specialty Section. He has served on Government panels including the International Joint Commission Great Lakes SAB Workgroup on Ecosystem Health, the New York State DEC Comparative Risk Technical group, an EPA sponsored peer-review panel assessing risk to residents living on contaminated property, and as peer-reviewer for chemical specific ATSDR hazard profiles. He has appeared before the State of Indiana Environmental Quality Services Council speaking on risk and environmental health, testified before State Committees on the role of biomonitoring in public health programs, and spoken before National Legislators on chemicals, risk, and public health.

## Keenan,Russell

**AMEC Earth & Environmental, Inc.**

Dr. Keenan is Vice President and Technical Director for toxicology, human health and ecological risk assessment services at AMEC Earth & Environmental, Inc., an international scientific, engineering, and professional services company of 4,400 employees. He has 25 years experience as a biologist and toxicologist and is regarded as an expert in the risk assessment of PCBs, dioxins, furans, chromium, and mercury and for the development of time-dependent probabilistic risk assessment methods. Dr. Keenan managed the first private sector Cooperative Research and Development Agreement (CRADA) with U.S. EPA in the field of regulatory toxicology and risk assessment. The CRADA provided the framework for cooperative research to develop Monte Carlo-based models for characterizing the uncertainty in reference dose estimates used in noncancer risk assessment. Subsequent to this work, he was selected to serve as one of eight independent experts in the congressionally mandated review of U.S. EPA's process for handling toxicological uncertainty in IRIS (Integrated Risk Information System). Results of this peer review were submitted to the U.S. EPA Science Advisory Board and in a report to the U.S. Congress. Dr. Keenan is also noted for his work in evaluating the human health and ecological risks associated with contaminated riverine environments, including the Hudson River PCB Superfund Site, the Housatonic River in Massachusetts and Connecticut, the Fox River in Wisconsin, the Columbia River in Oregon and Washington, the Penobscot River in Maine, tributaries of the Delaware, and rivers in the greater New York – New Jersey watershed. He has conducted over 100 human health and wildlife risk assessments for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) sites and has evaluated the risks associated with exposure to conventional and radioactive residuals from former mining operations, particularly in the western U.S. He has testified before U.S. Congressional panels and various state and federal agencies during regulatory proceedings on environmental issues. Among other accomplishments, this work has led to the establishment of EPA-approved alternative ambient water quality criteria in nine states. He is an active member in the Society of Toxicology, receiving two best paper awards, and in the Society for Risk Analysis, the National Council for Air & Stream Improvement, and the Maine Pulp and Paper Association. He received his B.S. in Biology from Bates College and his Ph.D. in Environmental Biology from Duke University.

## Kipen,Howard

**UMDNJ-Robert Wood Johnson Medical School**

Dr. Howard Kipen received a BA from UC Berkeley and MD from UC San Francisco. He completed an internal medicine residency at Columbia-Presbyterian Medical Center in New York, followed by an MPH at Columbia and an Occupational Medicine residency at Mount Sinai in New York. He accepted an assistant professor position at UMDNJ-Robert Wood Johnson Medical School in 1984. Dr. Kipen is currently Professor (with tenure) in the Department of Environmental and Occupational Medicine at UMDNJ-Robert Wood Johnson Medical School (RWJMS). He is also Chief of the Division of Clinical Research and Occupational Medicine, Director at the Clinical Center, and Medical Director of the Controlled Environment Facility (CEF) of the Environmental and Occupational Health Sciences Institute (EOHSI), a joint institute of UMDNJ and Rutgers. He holds additional faculty appointments at the two Universities in Family Medicine, Internal Medicine, the School of Public Health, and the graduate programs in Toxicology, Exposure Science, and Environmental Science. He has authored over 150 scientific articles, book chapters and reviews on various topics in environmental and occupational health, many on respiratory disease. He has done clinical and epidemiologic studies on symptom outbreaks such as Gulf War Illness, but has more recently pursued mechanistic studies to understand how air pollutants affect cardiovascular and respiratory health. A recent study conducted controlled exposures to diesel exhaust in healthy humans and found changes in a novel marker of oxidative stress. An innovative experimental paradigm uses real-world exposures to highway traffic and oxidative stress responses. He is co-investigator on a Community Based Participatory Research EPA STAR grant that

examines asthma severity and among a panel of disadvantaged Newark children with disproportionate exposure to truck traffic from nearby ports (Rob Laumbach, PI). An ongoing study examines the mechanisms of beneficial health effects of drastic air pollution reductions in Beijing for the 2008 Olympics. His group investigates markers of oxidative stress and vascular function after traffic pollution exposure. He has served on or chaired a number of committees at the Institute of Medicine/National Academy of Sciences, NIH, Department of Veterans Affairs, Department of Defense, NASA, and NJ Departments of Environmental Protection and Health. In particular, he served as Chair of the Institute of Medicine Committee on Increasing Health Professionals' Use of Toxicology and Environmental Health Databases, an important foundation for more recent Environmental Justice applications.

## Klaunig,James

**Indiana University**

Dr. James E Klaunig is Professor of Environmental Health at Indiana University, Bloomington. He received his BS in biology from Ursinus College, Collegeville PA, and a Ph.D in experimental pathology from the University of Maryland, Baltimore, MD. Previously he spent 20 years on the faculty as Robert Forney Professor and Director of Toxicology at Indiana University School of Medicine. His research has been devoted to understanding the mechanisms and human risk of environmental and pharmaceutical toxicants particularly their role in carcinogenesis. His research is supported by the NIH, DOD and non federal sources of support. He is active in the Society of Toxicology having served on elected and appointed committees over the past 30 years. He serves as a member of National Academy of Sciences Committee on the Analysis of Cancer Risks in Populations near Nuclear Facilities and a Member of the Board of Directors of Toxicology Forum. He has received several awards for his academic and service work including the Kenneth P. DuBois Award from the Midwest SOT, the George H. Scott Award (Toxicology Forum), the Benjamin Trump Lectureship Award (Aspen Cancer Conference), member the Freehold HS Alumni Hall of Fame. From Indiana University, he has also received the Otis R. Bowen, M.D. Distinguished Leadership Award and the Indiana University Board of Trustees' Teaching Award. He received the Sagamore of the Wabash, the highest award given for service to the State of Indiana for his tenure as the State Toxicologist of Indiana . He is a former Associate Editor of Toxicological Sciences and Editor in Chief of Toxicologic Pathology. He is a Fellow in the Academy of Toxicological Sciences. He has published over 210 peer reviewed manuscripts and book chapters and has mentored over 50 MS, Ph.D., and postdoctoral fellows in Toxicology.

## Lash,Lawrence

**Wayne State University**

LAWRENCE H. LASH, Ph.D. is Professor in the Department of Pharmacology at Wayne State University School of Medicine in Detroit, Michigan. Dr. Lash received his Ph.D. in Biochemistry from Emory University in 1985 and was a postdoctoral fellow at the University of Rochester from 1985 to 1988. In 1988, he joined the faculty at Wayne State University, rising through the academic ranks to his current position. Dr. Lash's research interests are in the areas of renal drug metabolism and toxicology, with particular focus on glutathione and in vitro models for study of chemically induced toxicity and membrane transport processes. Dr. Lash's laboratory has provided a biochemical mechanism to explain the transport of glutathione into renal mitochondria, by identifying and cloning two anion carrier proteins. His laboratory has made important contributions to our understanding of the metabolism of trichloroethylene and perchloroethylene, two industrial solvents that have been identified as environmental toxicants implicated in diseases including cancer. He has established in vitro cell models using rat and human kidney for use in metabolic, dispositional and toxicological studies of these solvents along with other renal toxicants. This research has resulted in >100 peer-reviewed publications and >50 reviews and book chapters and has been supported since 1986 by the National Institutes of Health, Department of Defense, U.S. Environmental Protection Agency, and the pharmaceutical industry. Dr. Lash has edited or co-edited four books on various aspects of drug metabolism and toxicology and has consulted with the National Research Council on biomarkers in urinary toxicology and with the U.S. Environmental Protection Agency on their human health risk assessments for trichloroethylene and perchloroethylene. Dr. Lash is also an Associate Editor for Toxicology and Applied Pharmacology, the Journal of Pharmacology and Experimental Therapeutics, and Pharmacology and Therapeutics and serves on several other editorial boards. Dr. Lash was a member of the National Institutes of Health Alcohol and Toxicology-4 Study Section (1999-2003). He teaches medical and graduate students in the areas of drug metabolism, toxicology, pharmacogenetics, and membrane transport physiology, and trains Ph.D. and M.S. students in Pharmacology. Dr. Lash is a member of the American Association for the Advancement of Science, the American Society for Biochemistry and Molecular Biology, the American Society for Pharmacology and Experimental Therapeutics, the American Society of Nephrology, the Society of Toxicology, and the International Society for the Study of Xenobiotics.

## Latshaw,Megan

**Association of Public Health Laboratories**

As the Environmental Health Director at the Association of Public Health Laboratories, Dr. Latshaw works to strengthen environmental and public health laboratories. Her team focuses on creating a national biomonitoring system, testing for agents of chemical terrorism, and building a home base for environmental laboratories. Prior to that, she served as the Senior Director for Environmental Health Policy at the Association of State and Territorial Health Officials. While there Dr. Latshaw led the establishment of the State Environmental Health Directors group. Her doctorate is in Environmental and Occupational Health from the Johns Hopkins University, where she continues to serve as a Faculty Associate. Additionally, she holds a Masters in Environmental Health Sciences, a Certificate in Risk Sciences and Public Policy, and a Bachelors in Biology from the same University. Her dissertation results, which were published in the Journal of the American Medical Association and covered in major news venues, demonstrated that higher blood mercury levels were not consistently associated with poorer performance on tests of cognitive function.

## Lee,Richard

**RJ Lee Group, Inc**

Dr. Richard J. Lee is currently the CEO and founder of RJ Lee Group, Inc. and has been for over 25 years. He is a senior executive with an entrepreneurial spirit, a renowned scientist and a subject matter expert on a variety of chemical assessments and industrial forensic investigations. His expertise encompasses materials analysis, nanotechnology, mining and minerals, air quality, metallurgical failure analysis, concrete durability, biomedical devices, criminal forensics, industrial hygiene and environmental science. He was a principal investigator in a

number of cases surrounding the WTC (World Trade Center) event including environmental damage assessments on behalf of building owners. He routinely provides strategic direction and technical oversight in key company projects and has testified in both state and federal courts. Dr. Lee's educational background includes a bachelor's degree in Physics from the University of North Dakota and a doctorate in Theoretical Solid State Physics from Colorado State University. Dr. Lee's analytical studies have often been in collaboration with and in support of other disciplines including toxicology, risk assessment, public health, modeling and epidemiology related to multiple contaminants of concern. His extensive experience has also led to his service on boards of a number of companies including a scientific instrument company, an alliance of several service-based technology companies, and a waste management company involved in cutting edge technology converting rubber tires into renewable energy products. His work on several EPA advisory boards (EPA Scientific Review Panel on Air Chemistry and Physics and EPA Select Panel for Development of Methodology for Asbestos Analysis by Transmission Electron Microscopy) makes him an ideal candidate for this EPA Science Advisory Board. His understanding of the personal role, commitment, nature, and mission of such an advisory board will strengthen its effectiveness. Furthermore, Dr. Lee is author or co-author of more than 200 presentations and publications in his fields.

## Lewandowski,Thomas

**Gradient**

Dr. Lewandowski is a toxicologist and chemist with more than twenty years of experience in toxicology and human health risk assessment. is a toxicologist and chemist with more than twenty years of experience in toxicology and human health risk assessment. Dr. Lewandowski currently works as a Principal Scientist at Gradient and also holds appointments at the University of Washington and Brooklyn College/The City University of New York. At Brooklyn College he teaches an undergraduate course on human impacts on the environment with a focus on sustainability and environmental justice issues. He has taught toxicology and risk assessment in several international settings. Dr. Lewandowski holds a B.S. degree in Biology and an M.P.H. degree in Environmental Health/Public Health Policy, both from the University of Michigan, and a doctorate in Environmental Health from the University of Washington. Dr. Lewandowski is an active member of the Society of Toxicology (SOT), where he currently serves on SOT's Education Committee (serving as chairperson in 2012-2013). Dr. Lewandowski is also board certified in toxicology in both the US and Europe. Dr. Lewandowski has authored numerous publications, including both journal articles and book chapters, relating to the toxicology of environmental chemicals, biologically-based dose-response modeling, and developmental toxicology. He is the first author on a widely-cited article regarding interspecies differences in perturbation of thyroid homeostasis, using perchlorate as a case study. He has extensive experience evaluating the potential health risks of chemical exposures associated with consumer products, pharmaceuticals, occupational settings, and hazardous waste sites. He has served as a peer reviewer of several USEPA and ATSDR health effects documents, providing comments and suggestions on mode-of-action, weight of evidence, and cross-species extrapolation arguments. Before joining Gradient, Dr. Lewandowski was an NIEHS trainee at the University of Washington, conducting research related to development of a pharmacokinetic-pharmacodynamic model for the neurodevelopmental effects of methylmercury.

## Li, Abby

**Exponent**

Dr. Abby A. Li is a Senior Managing Scientist in the Health Science Practice of Exponent Inc., a scientific consulting firm. Her areas of interest include adult and developmental neurotoxicology, and risk assessment. She holds a B.A. in Chemistry and a Ph.D. in Pharmacology and Physiology from the University of Chicago. Dr. Li is currently doing research evaluating the neurotoxic potential of solvents and pesticides. Previously to joining Exponent Inc., she was Senior Science Fellow at Monsanto, providing expertise in toxicology/risk assessment to address regulatory science issues in different world areas. Dr. Li led the neurotoxicology group at Monsanto's Environmental Health Laboratory for more than ten years where she conducted pharmacokinetic, toxicology and neurotoxicology studies for industrial chemicals, agricultural products, and pharmaceuticals. She served on the U.S. expert teams to the Organization for Economic Cooperation and Development (OECD) for the development of international test guidelines for adult and developmental neurotoxicology, and as chair of neurotoxicology expert groups for industry trade organizations (i.e., the American Chemistry Council's long-range research program and American Industrial Health Council) addressing scientific/regulatory issues in neurotoxicology. Dr. Li was a full member of the U.S. Environmental Protection Agency's Science Advisory Board's Environmental Health Committee for six years, and a member of several International Life Science Institute Committees on developmental neurotoxicology and toxicity testing of pesticides. She also served on the National Academy of Science's National Research Council Committee on Toxicity Testing and Assessment of Environmental Agents.

## Louis, Thomas

**Johns Hopkins University**

Thomas A. Louis, PhD is Professor of Biostatistics, Johns Hopkins Bloomberg School of Public Health. He earned his PhD in Mathematical Statistics from Columbia University, followed by positions as Assistant Professor of Mathematics, Boston University; Associate Professor of Biostatistics, Harvard SPH; Professor and Head of Biostatistics, University of Minnesota SPH; Senior Statistical Scientist, Rand. Research includes Bayesian methods; clinical and field trials; health services research, environmental risk assessment; analysis of hierarchical data including longitudinal in both experimental and observational settings; genomics. Current applications include a variety of health services studies, taking advantage of linkage disequilibrium to control multiplicity in genomic studies, clinical trials on the treatment of Uveitis and behavioral interventions to reduce obesity, studies to better understand malaria epidemiology, vector biology and parasite genomics in Southern Africa. He has published over 280 articles, books/chapters, monographs and discussions. Professor Louis is an elected member of the International Statistical Institute, a Fellow of the American Statistical Association and of the American Association for the Advancement of Science. From 2000 through 2003, he was coordinating editor of *The Journal of the American Statistical Association* (JASA); from 2009-2011 co-editor of *Biometrics*. He has served as president of the Eastern North American Region of the International Biometric Society (IBS) and President of the IBS. He has chaired the ASA section of Bayesian Statistical Science and currently is retiring chair of the American Association for the Advancement of Science Statistics Section. From 2000-2005, he served on the Health Review Committee of the Health Effects Institute and is currently a member of the Board of Scientific Counselors, NIH/NIEHS. National Academy panel and committee service includes the Committee on National Statistics, the Committee on Applied and Theoretical Statistics, the Panel on Estimates of Poverty for Small Geographic Areas, the Panel on Formula Allocation of Federal and State Program Funds (chair), the Board of the Institute of Medicine's

Medical Follow-up Agency, the IOM Panel to Assess the Health Consequences of Service in the Persian Gulf War, the Committee on the use of Third Party Toxicity Research, and the Standing Committee on Risk Assessment.

## Lubin, Jay

**National Institutes of Health**

Dr. Lubin attended the University of California, Los Angeles, where he was a Mathematics Departmental Scholar and simultaneously received his B.A. and M.A (1970) degrees in mathematics. Following 3-years in the Peace Corps, he returned to the University of Washington Seattle where he received his Ph.D. in Biomathematics (1978), specializing in Biostatistics. He then joined the Division of Cancer Epidemiology and Genetics (DCEG), National Cancer Institute, National Institutes of Health as an intramural research scientist where he remained until his retirement in May, 2011. He has since continued his research activities as a Special Volunteer. Dr. Lubin has conducted statistical research into the design and analysis of epidemiologic studies, including sample size and power for case-control and cohort studies, sampling of control subjects, Poisson regression methods for cohort data and for case-cohort data, effects of measurement error and exposure misclassification on risk evaluation, use of environmental measurements subject to detection limits, multiple imputation and missing data methods, attributable risk estimation, and modeling of disease dose-response relationships and of time since exposure/latency effects. He has conducted and collaborated on numerous epidemiologic studies to evaluate disease risks associated with environmental and occupational exposures, including cigarette smoking, alcohol consumption, inhaled and ingested inorganic arsenic, asbestos, indoor air pollution, restricted use pesticides, formaldehyde and diesel exhaust. He has long investigated the effects of exposure to ionizing radiations, including exposure to radon and its decay products in mines and in homes, medical exposures to x and gamma radiation and radiation exposures to children and to clean-up workers following the Chornobyl nuclear power accident. Dr. Lubin was elected Fellow, American Statistical Association (1994), Fellow, American Epidemiology Society (2000), Member, National Council of Radiation Protection and Measurements (2000, 2006, 2012) and has received the U.S. Public Health Service Special Recognition Award (1993), NIH Health Merit Award (1999), Mentor of the Year Award (2000) and Exemplary Service Award (2005), and was a 10-time recipient of the Sustained Performance Award. He has served on the Regional Advisory Board, Biometrics Society (1989-91) and was an Associate Editor of Biometrics (1997-9) and for the journal of the Society for Radiation Research (2001-6). He has served on numerous DCEG committees and on several committees for the National Academy of Sciences (NAS), and as reviewer and participant for several Reports and Workshops of the NAS, the Institute of Medicine and the U.S. Surgeon General. Dr. Lubin has mentored or advised over 40 pre-doctoral and post-doctoral Fellows, Master's Degree students, Staff Scientists and Tenure-Track Investigators.

## McConnell, Ernest E

**ToxPath, Inc.**

Dr. McConnell is president of ToxPath, Inc., a private consulting firm in Raleigh, NC. He received his DVM from the Ohio State University, a MS in pathology from Michigan State University, and completed a residency in comparative pathology at the Armed Forces Institute of Pathology, Walter-Reed Army Medical Center. He spent 13 years in the United States Air Force and 14 in the US Public Health Service. Gene's positions in the government included an assignment at the Veterinary Research Institute, Onderstepoort, South Africa, Aerospace Medical Research Lab., Wright-Patterson Air Force Base, Ohio and National Institute of Environmental Health Sciences (NIH), where he was Chief of the Chemical Pathology Branch and Director of the Division of Toxicology Research and Testing (National Toxicology Program). He is a diplomate of the American College of Veterinary Pathologists and the American Board of Toxicology, of which he is a past president. He has been a member of numerous national and international forums dealing with toxicology and pathology, including the National Academy of Sciences, Chair of the EPA Science Advisory Panel (FIFRA), panel member on International Agency for Research on Cancer monographs and various panels of the World Health Organization. He is the author of over 300 peer-reviewed publications. His research has focused on the design and interpretation rodent bioassays of various toxicants, especially the pathology caused by various types of natural and man-made inhalation toxicants.

## McPartland,Jennifer

**Environmental Defense Fund**

As a health scientist in Environmental Defense Fund's (EDF) health program, Dr. Jennifer McPartland focuses on chemicals policy issues in legislative, regulatory, and scientific contexts. Scientific elements of her work include following and communicating research that examines the effects of chemicals on human health and assessing the new, high-throughput chemical testing methods being explored at the Environmental Protection Agency. Before her arrival at EDF, Jennifer was the 2009-2010 American Society for Microbiology/American Association for the Advancement of Science Congressional Fellow working in the Office of Congresswoman Diana DeGette. While in the DeGette Office she focused primarily on health and consumer related issues ranging from direct-to-consumer genetic testing and food safety to chemical policy reform. Prior to entering the policy realm, Jennifer was a postdoctoral researcher at the University of Chicago, elaborating upon her graduate studies in defining initial interactions between the bacteriophage N4 virus and its Escherichia coli host. Other investigations involved characterization of a protein that confers capsid stability to the N4 virus. Jennifer received a BS in Chemistry with a specialization in Biochemistry from the University of Virginia (UVA). While at UVA she researched oncogene amplification as it relates to carcinogenic tumor progression and chemotherapeutic resistance. During her third year of studies at UVA, Jennifer interned at Cell Therapeutics, Inc where she worked on developing biologically-enhanced, tumor tissue-preferential chemotherapeutic drug delivery systems. She has served the Chicago Department of Public Health, evaluating grant submissions aimed at assisting HIV high-risk/infected Chicagoans. Jennifer also worked with the University of Chicago Arête Initiative assessing research proposals that creatively integrate the humanities and sciences. She has volunteered with the non-profit organization Chicago Cares, designing and supervising the preparation of meals for low income women living with HIV and has spoken to young women about career opportunities in science policy.

## Meek,Bette

**University of Ottawa**

Dr. Bette Meek is currently the Associate Director of Chemical Risk Assessment at the McLaughlin Centre for Population Health Risk Assessment, University of Ottawa, where she has recently completed an interchange assignment from Health Canada. She has extensive

experience in the conduct and management of chemical risk assessments within the Government of Canada, having managing most recently, the program of health assessments of Existing Substances under the Canadian Environmental Protection Act (CEPA) and previously, those related to contaminants in drinking water and air. With colleagues within Canada and internationally, she has contributed to or led initiatives to increase transparency, defensibility and efficiency in chemical risk assessment, having convened and participated in initiatives in this area for numerous organizations including the International Programme on Chemical Safety, the World Health Organization and the Organization for Economic Cooperation and Development. Areas of contribution have included the development of frameworks for weight of evidence analysis including mode of action, chemical specific adjustment factors, physiologically-based pharmacokinetic modeling, combined exposures and predictive modeling. She has also authored over 175 publications in the area of chemical risk assessment and received several awards for contribution in this domain. Dr. Meek has a background in toxicology receiving her M.Sc. in Toxicology (with distinction) from the University of Surrey, U.K. and her Ph.D. in risk assessment from the University of Utrecht, the Netherlands

## Meinhardt,Patricia

**OEM Consultation**

Dr. Patricia Meinhardt is an occupational and environmental medicine specialist with advanced training as a physician-epidemiologist and board certification in preventive medicine and public health. She has monitored thousands of patients for the health effects associated with exposure to a diverse array of biological and chemical agents in both occupational and environmental settings and has significant expertise in the diagnosis, treatment, and prevention of water-related disease and the health effects of water pollution. Dr. Meinhardt's major research interest is improving the recognition and evaluation of environmentally related diseases by the medical and public health community. She has worked in collaboration with and received funding from the Environmental Protection Agency (EPA), Centers for Disease Control and Prevention (CDC), Agency for Toxic Substances and Disease Registry (ATSDR), American Medical Association (AMA), and American College of Preventive Medicine (ACPM) to provide education to more than 19,500 medical and public health practitioners regarding the diagnosis and treatment of water-related disease with a special emphasis on susceptible populations most at risk for serious morbidity and mortality. Dr. Meinhardt is the author of Recognizing Waterborne Disease and the Health Effects of Water Pollution: A Physician On-Line Reference Guide accessible at www.WaterHealthConnection.org. In the past five years, this medical website has received more than 10 million hits for information from over 350,000 visitors located in 105 countries and 9 regions and territories. A special section of this medical reference guide addresses patient risk evaluation and health risk communication for waterborne contaminant exposure. Another section is dedicated to the appropriate diagnosis and medical management of potential health consequences resulting from exposure to waterborne chemical contaminants.Dr. Meinhardt has provided technical assistance and medical consultation to numerous national and international organizations and public health agencies over the past 20 years regarding the health consequences of air and water pollution. She participated as an environmental medicine expert in the 2006 Drinking Water Contaminant Candidate List (CCL) Expert Review Panel (Phase II) at the invitation of the EPA Office of Water. Most recently, she acted as an external peer reviewer for the EPA Office of Science and Technology on draft microbial risk assessment guidelines and a draft review of potential chronic health sequelae caused by exposure to water-based contaminants. Dr. Meinhardt has participated on numerous local community committees addressing environmental health concerns and currently serves on several national committees and advisory groups including the Health, Safety, and Environment Working Group of the International Organization for Standardization Technical Committee on Nanotechnologies (American National Standards Institute) and the National Water Research Institute. Dr. Meinhardt is currently an adjunct associate professor in the Department of Environmental and Occupational Health at the Drexel University School of Public Health in Philadelphia, PA and is the medical director of OEM Consultation, a private consulting practice based in Ithaca, NY. She received her medical degree from the Medical College of Pennsylvania and completed her preventive medicine residency training at Johns Hopkins University (JHU). She also received a MPH degree in epidemiology from JHU including specialty training in occupational and environmental epidemiology, toxicology, and human health risk assessment.

## Meliker,Jaymie

**Stony Brook University**

Dr. Jaymie Meliker, Ph.D., is an academic scholar contributing to the fields of exposure science, health geography, and environmental epidemiology by developing methodologies for integrating sources of spatial, temporal, and spatio-temporal variability in environmental health. He has published more than 40 peer-reviewed articles on drinking water contaminants, air pollutants, metals, asthma, osteoporosis, cardiovascular disease, and different types of cancers, and enjoys tackling problems that shed light on risk from environmental contaminants. He is an Assistant Professor in the Graduate Program in Public Health, Department of Preventive Medicine, Stony Brook University on Long Island, New York. He also is affiliated with the Consortium for Interdisciplinary Environmental Research, Long Island Groundwater Research Institute, Center for Impacts of Regional Climate Change, and Minerals-Metals-Metalloids-Toxicity program at that institution. He serves on the advisory boards of CAREX Canada: Surveillance of environmental and occupational exposures for cancer prevention - drinking water contaminants committee, and the Gelfond Fund for Mercury Research & Outreach. He is an elected councilor of the International Society of Exposure Science and is on the International Organizing Committee for the 2013 Annual Meeting in Basel, Switzerland. He served on an NIEHS grant review panel on Environmental Sensors for Personal Exposure Assessment and on the NIH Study Section for Infectious, Reproductive, Asthma, and Pulmonary Conditions. He is a member of the editorial boards of the journals Spatial and Spatio-temporal Epidemiology and Science of the Total Environment. Dr. Meliker received his BA in Neuroscience from Oberlin College, and earned MS and PhD degrees in Environmental Health Sciences and a graduate certificate in spatial analysis/GIS all at the University of Michigan. In addition to his work within academia, he worked as a research scientist at BioMedware, Inc., a small research firm in Ann Arbor, Michigan and before that worked as a Sustainabilty Consultant for the Center for Maximum Potential Building Systems in Austin, Texas.

## Michaels,Robert

**RAM TRAC Corporation**

As founder and President of RAM TRAC Corporation based in Schenectady, New York, Dr. Michaels consults in toxicology and human health risk assessment to public interest, corporate, government, and professional clients. He has hands-on experience in assessing chronic,

subchronic, and acute chemical risks, such as catastrophic industrial releases of ammonia and chlorine gases. By congressional invitation he has testified orally and in writing regarding Superfund reauthorization, and testified to EPA committees including the Clean Air Science Advisory Committee and National Advisory Committee on Acute Exposure Guideline Levels.Dr. Michaels has served the Congressional Office of Technology Assessment, California Governor's Office of Appropriate Technology, Natural Resources Defense Council, and Fortune 500 companies; and for years chaired State of Maine Scientific Advisory Panel. He is an elected Life Member of the New York Academy of Sciences, and for 18 years has chaired the Certification Review Board of the Academy of Board Certified Environmental Professionals (ABCEP). He also is an ABCEP Trustee, Secretary of the National Fire Protection Association (NFPA) Technical Committee on Classification and Properties of Hazardous Chemicals, and Member of the Board of Directors of the National Association of Environmental Professionals. Dr. Michaels also has served on Editorial Advisory Boards of scholarly journals including (formerly) Environmental Engineering and Policy published by Springer-Verlag and (currently) Environmental Practice published by Cambridge University Press. He is a technical manuscript peer reviewer for journals, the US EPA, the US Agency for Toxic Substances and Disease Registry, and the United Nations. He earned his doctorate at the State University of New York at Stony Brook in 1979 in the Department of Ecology and Evolution. Dr. Michaels' professional contributions were recognized in 2004 when ABCEP awarded him the Kramer Medal for excellence in his field.

## Mirer,Franklin E.

**Hunter College of The City University of New York**

Dr. Franklin E. Mirer is a toxicologist and certified industrial hygienist. His primary scientific interest is exposure and risk assessment in the occupational environment, and regulatory policy. He also has studied particulate air pollution in the urban environment. Dr. Mirer has been Professor of Environmental and Occupational Health in the Urban Public Health Program at Hunter College of the City University of New York since 2006. He retired as Director of the UAW Health and Safety Department after 30 years of service. Dr. Mirer received a Ph.D. in organic chemistry from Harvard University in 1972, and trained further as a Research Fellow in Toxicology at the Harvard School of Public Health. Dr. Mirer most recently served on the CDC National Conversation on Chemical Exposures and Health Leadership Council and Scientific Understanding Work Group, the NAS Framework Committee to Review NIOSH Research Programs and Evaluation Committee for the NIOSH Health Hazard Evaluation Program; and IARC Working Groups for Monographs 101 and 89. Dr. Mirer developed and delivered testimony before OSHA regarding a dozen health and safety standards, and has testified before House and Senate Committees on occupational safety and health and regulatory policy matters. He has authored scientific papers on exposure assessment, risk assessment and epidemiology.

## Morris,John

**University of Connecticut**

John B. Morris, Ph.,D. is currently a Board of Trustees Distinguished Professor at the University of Connecticut. His home department is the Department of Pharmaceutical Sciences in the School of Pharmacy. He also serves as the Assistant Dean for Research in the School. Dr. Morris received a B.S. in Chemistry from Allegheny College (1973), a M.S. in Toxicology from the University of Rochester (1977), and a Ph.D. in Toxicology from the University of Rochester (1979). He completed a two year postdoctoral fellowship in inhalation toxicology at the New York University School of Medicine Institute of Environmental Medicine with Morton Lippmann. He then joined the faculty of the University of Connecticut as an Assistant Professor and has been successively promoted to his current rank, the highest faculty rank within the University. Dr. Morris' area of expertise is in the field of inhalation toxicology. His research focuses on inhalation dosimetry and the acute respiratory response to irritant vapors in healthy and asthmatic animal models. He has extensively published in these areas including ~80 peer reviewed publications and numerous book chapters. He co-edited the recently published book: "Toxicology of the Nose and Upper Airways". Dr. Morris has extensive experience on advisory bodies associated with health assessment of airborne pollutants. He served on the State of Vermont Toxicology Advisory Committee, the State of Virginia Inhalation Toxicology Advisory Group and chaired the State of Connecticut Hazardous Air Pollutant Advisory Panel. In addition, he has reviewed numerous EPA documents including the Inhalation RfC methodology document and several IRIS and PPRTV documents for specific chemicals. He also served on the National Academies of Science/National Research Council Committee on Emergency and Continuous Exposure Guidance Levels for Selected Submarine Contaminants.

## Mundt,Kenneth

**ENVIRON International Corporation**

Dr. Kenneth Mundt is a Principal and serves as Director of Epidemiology at ENVIRON International Corporation. He received a PhD in Epidemiology from the University of North Carolina at Chapel Hill, an MS in Epidemiology from the University of Massachusetts at Amherst, and holds adjunct faculty appointments at both the University of North Carolina and the University of Massachusetts. He chairs the Executive Committee of the Deans Advisory Board of the University of Massachusetts School of Public Health and Health Sciences, and in 2011 was awarded the School's Recognition Award for Contributions to the Field of Public Health. He also serves as editor for two scientific journals, is a Fellow in the American College of Epidemiology, and maintains an active record of independent research, publication and scientific presentations.Dr. Mundt has more than 25 years of experience in the application of epidemiological concepts and methods to a wide range of occupational and environmental health challenges, including assessment of exposure to occupational and environmental chemical exposures; evaluating cancer, reproductive, cardiovascular, musculoskeletal injury risks; performing quality-based critical reviews of the epidemiological literature; determining health risks associated with consumer products, pharmaceuticals, and nanomaterials; epidemiological determination of causation; and epidemiological instruction and training. Dr. Mundt has conducted numerous epidemiological studies, including industry-wide cohort studies of workers in the rubber, vinyl chloride, chromium, carbon black and porcelain industries, as well as large studies of Army personnel and Air Force civilian workers. He has conducted and published several critical reviews and meta-analyses of epidemiological literature on the health effects of exposure to various chemicals.

## Murphy,Eileen

**Rutgers University**

Dr. Eileen Murphy is the Director of Research and Grants at the Rutgers University Ernest Mario School of Pharmacy. She coordinates multi-

disciplinary research projects among faculty in pharmacology, toxicology, communication, environmental science, engineering and other disciplines. Her research interests include occurrence, fate and transport of pharmaceuticals and other anthropogenically-derived organic chemicals in the environment. Prior to holding this position, she served as the Director of the New Jersey Department of Environmental Protection (NJDEP) Division of Science, Research and Technology. Before becoming Director in 2004, she served as Assistant Director for four years and as a research scientist for 15 years within the group, developing an expertise in the drinking water field. Dr. Murphy holds a B.S. in English with a minor in Biology from the University of Notre Dame, an M.S. in Environmental/Outdoor Education from Northern Illinois University, and a Ph.D. in Environmental Science from Rutgers University. Dr. Murphy has focused much of her career on drinking water science, including contaminant occurrence and fate & transport. She has been involved in the issue of unregulated contaminants in drinking water and the treatment to remove them from finished water. Her particular research emphasis is on exposures to toxic substances, fate and transport of toxic substances and assessments of the potential risks to human health and the environment posed by these exposures. She is co-author on numerous peer-reviewed scientific papers that have appeared in scholarly journals, including Environmental Science and Technology. Before coming to NJDEP, Dr. Murphy served as Assistant Director for the Douglass Project for Rutgers Women in Math and Science and as a Project Manager for the Center for Math, Science and Computer Education at Rutgers University.

## Orlov, Alexander

**State University of New York, Stony Brook**

Dr. Alexander Orlov is an Assistant Professor of Materials Science and Engineering at State University of New York, Stony Brook, USA. He is the first ever Provostial appointment in environmental area at the College of Engineering and Applied Sciences. He is also a faculty member of the Consortium for Interdisciplinary Environmental Research and affiliate faculty of Chemistry Department. His major research and teaching activities are in development of novel nanomaterials for environmental protection and green chemistry routes of materials production, spectroscopic studies of pollutant interactions with mineral surfaces, physicochemical methods of pollutant removal, environmental aspects of energy production, new technologies for sustainable energy production and heterogeneous environmental catalysis. Before coming to Stony Brook he was a Research Fellow in Science and Engineering at the University of Cambridge (UK), where he was also affiliated with the King's College. Dr. Orlov has 5 degrees from various European and the US institutions, including: Doctoral and Master's degrees in Physical and Environmental Chemistry from the University of Cambridge (UK) and Master's degree in Environmental Engineering from the University of Michigan (US). He also holds Diploma in Economics from the London School of Economics. In 2007 Dr. Orlov was appointed by the UK Secretary of State to advise the Labour Government on such environmental issues as hazardous substances and environmental impact of nanotechnology. He was a co-author of several reports to the UK government, including reports on DecaBDE toxicity, cumulative effects of phthalates, phosphate recycling and several others. He was reappointed to the same role by the new Conservative Liberal Democrats Coalition Government in 2010. Before accepting this position, Dr. Orlov served as a member of the UK Conservative Party Task Force (Chaired by Hon. Ian Taylor, former UK Minister of Science) charged with a development of the science policy for the next Conservative Government. Among his current activities, Dr. Orlov is contributing to the work of the United Nations Environmental Program as a Lead Author for the Global Environmental Outlook (GEO) report and to the activities of the UK Parliamentary and Scientific Committee. He is reviewer of grant proposals submitted to the National Science Foundation (US), the EU Commission, the Engineering and Physical Sciences Research Council (UK), the Natural Environment Research Council (UK), the American Chemical Society (US) and various other agencies. He was also an invited speaker at the OECD and EU commission meetings on environmental aspects of nanotechnology. Dr. Orlov is a recipient of National Endowment for Science Technology and Arts CRUCIBLE award (UK) focused on developing skills in communicating science to general public and policy makers.

## Ozonoff, David M.

**Boston University**

Dr. David M. Ozonoff is Professor of Public Health and Chair Emeritus in the Department of Environmental Health at Boston University School of Public Health. He graduated with a B.S. in mathematics from the University of Wisconsin in 1962, from Cornell University Medical College with an M.D. degree in 1967 and from Johns Hopkins School of Hygiene and Public Health with an M.P.H. degree in 1968. He spent one year as a Macy Fellow in the History of Science Department of Harvard University in 1975 and a year as a Mellon Fellow at MIT in 1976. His primary area of research is in environmental epidemiology, where he has conducted extensive studies of communities exposed to hazardous wastes and water contaminated with chlorinated ethylenes. He also works on new mathematical techniques for analyzing epidemiological data. He has been Director of the Boston University Superfund Basic Research Program for the last eight years. He is past-President of the Massachusetts Public Health Association, a Fellow of the Johns Hopkins Society of Scholars and a Fellow of the Collegium Ramazzinni. Dr. Ozonoff currently serves on the U.S. EPA's Science Advisory Board's (SAB) Exposure and Human Health Committee. Dr. Ozonoff has served on numerous federal Advisory Committees, including the Advisory Committee for Energy Related Epidemiological Research to the Secretary of the U.S. Department of Health and Human Services (HHS), the Disinfection By-Products Negotiated/Microbial Contamination Rulemaking Committee to the U.S. EPA, several environmentally-related National Research Council (NRC) committees and National Institutes of Health (NIH) grant review committees. He is a Member of the Massachusetts Bioterrorism Preparedness and Response Program Advisory Committee, February 2002 - present. He is on the External Advisory Committees of the Harvard Environmental Health Sciences Center, and the Harvard School of Public Health Environmental Statistics Program, as well as advisory committees on environmental matters to state and local governments.

## Parkin, Rebecca

**George Washington University**

Rebecca T. Parkin, PhD, MPH, is an environmental epidemiologist with over 30 years of career experience; she is now a Professorial Lecturer in Environmental and Occupational Health and in Epidemiology and Biostatistics in the School of Public Health and Health Services (SPHHS) of The George Washington University (GW). She occasionally serves as a public health consultant to federal agencies and local governments. She retired from fulltime work as the Associate Dean for Research and Public Health Practice and as a Professor in the Department of Environmental and Occupational Health, with a joint appointment in the Department of Epidemiology and Biostatistics, in SPHHS. Dr. Parkin was also the Scientific Director of the Center for Risk Science and Public Health at GW. Previously she served as the

Assistant Commissioner of Occupational and Environmental Health in the New Jersey Department of Health and as an Environmental Epidemiologist in the Centers for Disease Control. She received her A.B. in sociology from Cornell University; M.P.H. (environmental health) and Ph.D. (epidemiology) from Yale University; and Certificate in Science, Technology, and Policy from Princeton University. Her areas of expertise include environmental epidemiology, public health policy, and environmental health risk assessment and risk/benefit communication. Her research has been supported by the U.S. Environmental Protection Agency; the American Water Works Association Research Foundation; the Association of Occupational and Environmental Clinics; and the U.S. Departments of Defense, Homeland Security, and Health and Human Services. She has been a member of the National Research Council's Water Science and Technology Board; and has served on and been chair or vice chair of committees of the Council, the Institute of Medicine, U.S. Environmental Protection Agency (Science Advisory Board and several of its committees, and the Human Subjects Review Board), U.S. Dept. of Health and Human Services, and Agency for Toxic Substances and Disease Registry. Additionally, Dr. Parkin has served as a peer reviewer for various national and international professional organizations and journals focused on environmental health. She has represented U.S. public health scientists at international forums and workshops hosted by the National Academies, World Health Organization, professional societies, and academic institutions. Further, she has taught environmental and occupational health courses at several universities outside of the U.S. Among her many awards, Dr. Parkin has been elected to Delta Omega (public health honorary society), recognized by Yale University as a Distinguished Alumna, honored with the Association of Schools of Public Health/Pfizer Faculty Award for Excellence in Academic Public Health Practice and selected for lifetime membership as a National Associate of the National Academies.

## Parod, Ralph

**BASF Corporation**

Ralph J Parod, Ph.D., D.A.B.T. Since 1995, Ralph has been a toxicologist at BASF Corporation addressing stewardship and regulatory concerns with the toxicology of industrial chemicals. Prior to joining BASF, Ralph spent five years (1990-1995) as a regional manager for Gradient Corporation performing human health and ecological risks assessments for both private and public sector clients and four years (1986-1990) as an Assistant Professor in the Department of Pharmacology at the SUNY Buffalo Medical School. While at SUNY and in his post-doctoral training at the Harvard School of Public Health, Ralph served as principal investigator for NIEHS sponsored research on the mechanisms of pulmonary macriphage phagocyatosis. Ralph received a PhD in Pharmacology and an MS in Occupational and Environemntal Health from the Wayne State University Medical School as well as a BS in Civil Engineering from Marquette University. Ralph is a Diplomate of the American Board of Toxicology and full member of both the Society of Toxicology and the Society for Risk Analysis.

## Pechacek,Nathan

**Ecolab**

Nathan Pechacek is a Manager of Toxicology at Ecolab where he provides toxicological and risk assessment support for all of the company's business units. This includes toxicity study monitoring and interpretation, authoring of chemical-specific evaluations and summaries, and developing global strategies for regulatory compliance. Nathan also serves as the current President for SOT's Northland Regional Chapter, is a visiting lecturer at the University of Minnesota and is a member of specialty committees (i.e., Proposition 65, Asthma, Ingredient Safety) in both the Consumer Specialty Products Association and American Cleaning Institute. Prior to joining Ecolab, Nathan had experience as a toxicologist and risk assessor in academic (Oregon State University), regulatory (Texas Commission on Environmental Quality) and industrial (3M) settings. Overall, he has over 12 years of experience in the practice of toxicology. Nathan earned a B.S. in Environmental Science and Ecology from Minnesota State University, Mankato and an M.S. in Toxicology and Microbiology from Iowa State University. He is a Diplomate of the American Board of Toxicology and a member of the Society of Toxicology, Northland Society of Toxicology Regional Chapter, Consumer Specialty Products Association and American Cleaning Institute.

## Persky,Victoria

**University of Illinois at Chicago**

Dr. Victoria Persky is a Professor of Epidemiology in the School of Public Health, University of Illinois at Chicago. She received her undergraduate degree from Radcliffe College, M.D. from Albert Einstein College of Medicine, and completed residencies in Internal Medicine at University of Alabama in Birmingham, Montefiore Hospital in New York and Northwestern University. In addition to her epidemiology research, she practiced medicine part time for 30 years in a community-based health center on the Westside of Chicago. For the last 20 years her research focus has been in environmental epidemiology, with a major focus on endocrine effects of organochlorines. Currently, she is Principal Investigator and Co-Investigator of grants examining the effects of community-based interventions on morbidity from asthma and associations of PCBs, Dioxins and PBDEs with hormonal levels in consumers of Great Lakes fish. She is a past member of the National Institutes of Health (NIH) Infectious, Reproductive, Asthma and Pulmonary Conditions (IRAP) epidemiology study section and the Chicago Asthma Consortium Advisory Board and is a current member of the Board of Mobile C.A.R.E Foundation, the Cook County Lead Prevention Advisory Council and the Environmental Justice Journal Editorial Board. She is a member of the EPA Science Advisory Board reviewing the Draft Report "EPA's Reanalysis of Key Issues Related to Dioxin Toxicity and Response to NAS Comments"

## Philbert, Martin

**University of Michigan**

Dr. Philbert is Professor of Toxicology and Dean of the University of Michigan School of Public Health. He earned his Bachelor of Science degree in 1984 from the College of Arts and Technology at Cambridge, and his doctorate in 1987 from the London University Royal Postgraduate Medical School. He was awarded a postdoctoral fellowship in the Neurotoxicology Laboratories at Rutgers University from 1988-90. Dr. Philbert served as a research assistant professor at Rutgers' Neurotoxicology Laboratories until 1995 when he joined the faculty at the University of Michigan SPH as an assistant professor of toxicology. He was promoted to associate professor in 2000 and to professor in 2004. He served as associate chair for research and development in the Department of Environmental Health Sciences from 2000-03. In 2004, Dr. Philbert was appointed senior associate dean for research of the School of Public Health, a position he held through 2010 when he was appointed as Dean. He also served as interim director of the Center for Risk Science and Communication from 2004-10. He has maintained a continuously federally funded portfolio of basic research activities throughout his career. His research focuses on the

development of flexible polymer nanoplatforms for optical sensing of ions and small molecules and the early detection and treatment of brain tumors. Other research interests include the mitochondrial mechanisms of chemically-induced neuropathic states. Dr. Philbert served as the Vice-Chair of the National Academies National Research Council (NCR) Committee for the Review of the Federal Strategy to Address Environmental, Health, and Safety Research Needs for Engineered Nanoscale Materials, and Chaired the FDA Science Board Committee on Bisphenol A. Dr. Philbert served on the National Advisory Environmental Health Council of the National Institute of Environmental Health Sciences and provides consultation to federal agencies on a variety of issues surrounding emerging nanotechnologies. He is a Standing Member of the USFDA Science Advisory Board and the USEPA Board of Scientific Counselors.

## Plunkett, Laura

**Integrative Biostrategies, LLC**

Dr. Laura Plunkett is owner of the consulting company Integrative Biostrategies, LLC, and is based in Houston, Texas. She holds a doctoral degree in pharmacology and is a board-certified toxicologist with over 25 years of experience in the fields of pharmacology, toxicology and human health risk assessment. Dr. Plunkett is also a registered patent agent (1999-present). Dr. Plunkett received her B.S. in Zoology from the University of Georgia (1980) and her PhD in Pharmacology and Toxicology from the University of Georgia, College of Pharmacy (1984). Dr. Plunkett was a Pharmacology Research Associate Training (PRAT) fellow at the National Institutes of General Medical Sciences (1984-1986), within the National Institutes of Mental Health. Dr. Plunkett was an Assistant Professor of Pharmacology, with a joint appointment to the Department of Toxicology, within the medical school at the University of Arkansas for Medical Sciences where she performed research in the areas of cardiovascular pharmacology and toxicology, and neuropharmacology and toxicology. After leaving her academic appointment in 1989, she joined ENVIRON International Corporation, a health and environmental sciences consulting firm, working first in the Arlington, Virginia office and then in the Houston, Texas office. In 1997, Dr. Plunkett started her own consulting firm in Houston, Texas, first under the name Plunkett & Associates (1997-2001), and then as part of Integrative Biostrategies, LLC (2001-present). Dr. Plunkett also works as a patent agent with the law firm of Licata & Tyrrell, P.C (1999-present). Dr. Plunkett has extensive experience assessing potential human health risks associated with exposures to a wide variety of consumer products, food ingredients and additives, pharmaceuticals, medical devices, pesticides, industrial chemicals, and environmental agents. She has assisted in the preparation of reports for submission to federal regulatory agencies such as the FDA, EPA, and the CPSC. With her background in pharmacology and toxicology, as well as expertise in pharmacokinetics, Dr. Plunkett has evaluated data concerning mechanism of action of chemicals in a variety of contexts and applications. Dr. Plunkett has a particular interest in issues related to children's health and risks to children due to exposures to chemicals in their environment, and in development of novel testing strategies for chemicals. Dr. Plunkett has studied and evaluated potential health effects associated with a wide range of chemicals including a variety of heavy metals (e.g., lead, mercury, cadmium, and arsenic), PAHs, petroleum products, a wide variety of pesticides, and a wide variety of human pharmaceuticals. She has significant experience evaluating potential human health risks associated with exposure to contaminants in environmental media (air, water, and soil) and is knowledgeable about the regulation of such chemicals in the United States as well as in Europe. Dr. Plunkett has expertise in the regulation of various consumer products by the FDA and EPA as well. She has represented her clients in issues before FDA, EPA, the EU, and the JMPR/WHO. Dr. Plunkett has authored over 30 peer-reviewed publications and has presented at numerous scientific conferences. She is an active member of numerous professional societies including the Society of Toxicology, the American College of Toxicology, the American Association of Pharmaceutical Sciences, the Society for Risk Analysis, and the Society for Neuroscience. Dr. Plunkett has served as president of her local chapter of the Society for Risk Analysis and is currently serving on the board of her local chapter of the Society of Toxicology (Lone Star chapter).

## Possolo, Antonio

**National Institute of Standards and Technology**

Dr. Antonio Possolo is Chief of the Statistical Engineering Division (Information Technology Laboratory, NIST). He holds a Ph.D. in Statistics from Yale University (1983), where he studied under John Hartigan, and also with Frank Anscombe, Richard Savage, and David Pollard. In addition, he has a Licenciate in Geology from the Classical University of Lisboa, Portugal. He was Assistant Professor, Dept. of Statistics, first at Princeton University (1983-84), second at the University of Washington in Seattle (1984-89); at the latter, he also was Adjunct Assistant Professor in the Dept. of Geological Sciences. For the subsequent ten years, he was Associate Technical Fellow of the Boeing Company in Seattle. Between 2000 and 2006, he was a Statistician at the Global Research Center of the General Electric Company, in Niskayuna, New York. His service at NIST started in September 2006. He is a member of Working Group 1 of the Joint Committee for Guides in Metrology, at the International Bureau of Weights and Measures (BIPM, S`evres, France). He is committed to the development and application of probabilistic and statistical methods that use empirical data to best advantage for the advancement of science and technology, particularly in applications to the study of spatio-temporal phenomena, to the characterization of measurement uncertainty, and to quantitative risk assessment.

## Post, Gloria

**New Jersey Department of Environmental Protection**

Dr. Gloria Post has been a Research Scientist in the New Jersey Department of Environmental Protection Office of Science since 1986. She is responsible for development of the human health basis for New Jersey's standards and guidance for drinking water, surface water, ground water, soil, and fish consumption, for coordination of risk assessment approaches used throughout NJDEP, and for providing toxicology expertise to NJDEP on other issues. Dr. Post has developed risk assessments for many important environmental contaminants including chlorinated volatile organics, MTBE, PFOA, and perchlorate. She was a member of a national consortium evaluated in vitro approaches for determining bioavailability of metals in soils and of an interagency committee overseeing the National Toxicology Program studies of styrene-acrylonitrile trimer, a drinking water contaminant tested as part of the investigation of childhood cancer in Dover Township, NJ. She is the first author of the chapter on "Health and Aesthetic Effects of Drinking Water Contaminants" in the recently published 6th edition of the AWWA Handbook of Water Quality & Treatment. She serves on the Exposure and Human Health Committee of the USEPA SAB, the USEPA SAB Trichloroethylene Review Panel, and on the NJ Drinking Water Quality Institute, a legislatively mandated advisory body to NJDEP. She is also member of the planning committee of FSTRAC, an organization of government scientists responsible for human health assessment of drinking water contaminants. She has been a Diplomate of the American Board of Toxicology since 1990

and a full member of the Society of Toxicology since 1989, currently serving as Secretary of its Mid-Atlantic chapter. She has lectured in Pharmacology at Rutgers College of Pharmacy and on risk assessment at UMDNJ Schools of Public Health and Medicine. Dr. Post holds a Ph.D. in Pharmacology from Thomas Jefferson University, where her thesis work related to benzene metabolism and toxicity. She earned an A.B. with honors in Biochemical Sciences from Princeton University. Prior to joining NJDEP, she did post-doctoral research in biochemical toxicology at Duke University and Thomas Jefferson University.

## Pottenger,Lynn H.

**The Dow Chemical Company**

Dr. Lynn H. Pottenger, Toxicology Consulting Leader, has been with The Dow Chemical Company for over 20 years, working mostly with basic and intermediate chemicals. Following a B.A. in Biology from the University of Virginia, she earned a D.E.A. in Nutrition at the Laboratoire d'Hygiène et Santé under Prof. Foliguet at the Université de Nancy I, France, followed by a Doctorat de 3ème Cycle at the Institut National de Recherche et Sécurité, under Dr. Z. Elias, based on environmental mutagenesis studies. Returning to the USA, Dr. Pottenger earned a Ph.D. in Environmental Toxicology at the University of Wisconsin-Madison, under Prof. C. Jefcoate, based on the first purification and characterization of Cytochrome P4501B1. A post-doc at The Dow Chemical Company in Midland, MI, led to a staff position in Toxicology & Environmental Research and Consulting, TERC, at Dow Chemical. After some time in the Biotransformation group, Dr. Pottenger took on full-time toxicology consultation for several Dow businesses, for which the key responsibility is to identify and ensure availability of an appropriate toxicology database necessary to understand hazards and risks associated with the proper use of Dow products and processes. She spent several years working with a variety of Dow businesses at Dow Europe in Horgen, Switzerland, and has since returned to Dow/TERC in Midland, MI where she continues to provide expertise in toxicology to support Dow businesses and other organizations. Her focus encompasses the role of mode of action and dose-response in hazard characterization and risk assessment of chemicals, including DNA-reactive chemicals. Over the years Dr. Pottenger has chaired/co-chaired and participated in many chemical-specific toxicology groups of the American Chemistry Council (ACC) and the European Chemical Industry Council (Cefic). In addition, she leads the Joint Industry Group on DNA Adduct Research efforts (a collaboration between Cefic Sector Groups and ACC CPTD Panels), and chairs the tripartite ILSI/HESI DNA Adduct Project Committee; she co-chairs the ILSI/HESI In Vitro GeneTox Committee Quantitative Subgroup. She has authored/co-authored over 90 publications and presentations, has organized and chaired/co-chaired several workshops, both as stand-alone events and as satellites to or symposia at professional society meetings, and she is a full member of the Society of Toxicology. Dr. Pottenger brings toxicology expertise focused on applying the principles of mode of action and dose-response approaches to support a science-based understanding of hazards and risks of chemicals.

## Quint,Jula

**Retired chief of Hazard Evaluation System and Information Service of the California Department of Public Health**

Julia Quint is a public health scientist and retired Chief of the Hazard Evaluation System & Information Service (HESIS), an occupational health program in the California Department of Public Health (CDPH). Julia has a doctorate in Biochemistry and was a staff scientist at the Lawrence Berkeley Laboratory before joining CDPH in 1981. Julia received a lifetime achievement award from the Western Regional Pollution Prevention Network in 2006, and the Helen Rodriguez Trias "Lighting the Way" award from the California Public Health Association and the Health and Safety Activist award from the American Public Health Association in 2008. Julia currently serves on the Scientific Guidance Panel of the California Environmental Contaminant Biomonitoring Program, the Tracking Implementation Advisory Group of the California Environmental Health Tracking Program, the Cal/OSHA Health Experts Advisory Committee, and the National Academy of Sciences Committee on Tetrachloroethylene. She has authored numerous public health reports and scientific articles.

## Ramesh,Aramandla

**Meharry Medical College**

Dr. Aramandla Ramesh is an Associate Professor in the Department of Biochemistry & Cancer Biology at Meharry Medical College in Nashville, TN. Dr. Ramesh earned his first Ph.D. in Marine Microbiology from Annamalai University, India in 1986. He earned his second Ph.D. in Environmental Toxicology from Ehime University, Japan in 1992. His areas of expertise are bioavailability, toxicokinetics, and biotransformation, acute and subchronic toxicity of polycyclic aromatic hydrocarbons (PAHs). Current research in Dr. Ramesh's laboratory focuses on colon cancer caused by benzo(a)pyrene (BaP), a fat-soluble, widely distributed environmental chemical that belongs to the PAH family of compounds. Studies in his laboratory have shown that exposure of rats and mice to BaP and other PAHs through saturated fat cause induction of cytochrome P450 (CYP) family of enzymes resulting in the formation and distribution of reactive metabolites which stay in target tissues for a longer time and cause enhanced DNA damage. Ongoing research in his laboratory will eventually address the issue of how environmental factors (exposure to toxicants) and dietary practices (excessive intake of animal meat and fat products tainted with BaP) contribute to colorectal cancer in African Americans (third leading cause of cancer related mortalities) relative to other racial/ethnic groups. Before joining the faculty at Meharry in 2001, Dr. Ramesh was a research specialist in the Departments of Family & Preventive Medicine, and Pharmacology at Meharry. His earlier research focused on acute and subchronic toxicity of PAHs found in hazardous waste sites that were in close proximity to minority communities. Dr. Ramesh's association with the Meharry Medical College-Vanderbilt University Environmental Health consortium allows him to combine his long standing research experience in classical PAH toxicology and work collaboratively with Vanderbilt colleagues from the Basic Sciences and Community Medicine departments to investigate the interplay between diet and environmental contaminant exposure using state-of-the-art analytical and molecular approaches. As a Robert Wood Johnson Health Policy Associate, his current research is focused on exposure of minority communities to environmental chemicals and health disparities.Dr. Ramesh has extensively published in environmental chemistry & toxicology (more than 50 peer-reviewed publications, and 6 book chapters). He completed 4 National Institutes of Health (NIH)-funded projects in toxicology & chemical carcinogenesis. Two more projects are in progress. Dr. Ramesh served as a consultant to the Common Wealth Foundation, UK, International Development Research Centre, Canada, and Natural Environment Research Council (NERC), UK. He is also serving as a reviewer for research proposals submitted to the NIH, Robert Wood Johnson Foundation, and NERC, UK. Dr. Ramesh also serves on the editorial boards of Toxicology Mechanisms & Methods, ISRN Toxicology, and Polycyclic Aromatic Compounds.

## Rhomberg, Lorenz

**Gradient**

Lorenz R. Rhomberg, PhD FATS, is a Principal at Gradient, an environmental consulting firm based in Cambridge, Massachusetts, where he specializes in critical review of toxicological information, human health risk assessment, and science policy issues for environmental and consumer chemical exposures. He is a member of several scientific societies, including the Society for Risk Analysis, for which he served as a Councilor from 2002-2004, and as President of the New England Chapter in 1997-1998, as well as the Society of Toxicology, serving as a Councilor of the Risk Assessment Specialty Section from 2003-2005. Before joining Gradient in 1999, he was on the faculty of the Harvard School of Public Health. From 1984-1994 he was a risk assessor at the U.S. Environmental Protection Agency in Washington. Dr. Rhomberg earned his Ph.D. in population biology from the State University of New York at Stony Brook and an Honours B.Sc. in biology from Queen's University in Ontario. In 2009, Dr. Rhomberg was named Outstanding Risk Practitioner of the Year by the Society for Risk Analysis, and in the same year was named a Fellow of the Academy of Toxicological Sciences. He has served on six committees convened by the National Academy of Sciences, two as chair. For the U.S. EPA, he served on several FIFRA Scientific Advisory Panels and on chemical assessment peer review groups, including the 2000 EPA Dioxin Peer Review panel and the recent 2009 public meeting on reassessment issues.

## Richardson, David B.

**University of North Carolina**

David Richardson, PhD is Associate Professor of Epidemiology in the School of Public Health at the University of North Carolina at Chapel Hill. His research focuses on the health effects of occupational and environmental exposures, particularly with regards to ionizing radiation. He has conducted studies of cancer among nuclear workers at several U.S. Department of Energy facilities, as well as studied cancer among the Japanese survivors of the atomic bombings of Hiroshima and Nagasaki. He has served as a visiting scientist at the World Health Organization's International Agency for Research on Cancer in Lyon, France and at the Radiation Effects Research Foundation in Hiroshima, Japan. He is an Associate Editor of the journals Occupational and Environmental Medicine, American Journal of Epidemiology and Environmental Health Perspectives. He is a member of the President's Advisory Board on Radiation and Worker Health and of the Institute of Medicine's Committee on Review of the Department of Labor's Site Exposure Matrix Database. Dr. Richardson received a Ph.D. and M.S.P.H., both in epidemiology, from the University of North Carolina.

## Roberts, Stephen M.

**University of Florida**

Dr. Stephen M. Roberts is Professor at the University of Florida with joint appointments in the College of Veterinary Medicine, College of Medicine, and College of Public Health and Health Professions. He also serves as Director of the Center for Environmental & Human Toxicology at the University of Florida. Dr. Roberts received a B.S. in Pharmacy from Oregon State University and a Ph.D. from the University of Utah College of Medicine. After a postdoctoral fellowship at SUNY Buffalo (1977 – 1980), he served on the faculties of the University of Cincinnati College of Pharmacy (1980-1985) and the College of Medicine at the University of Arkansas for Medical Sciences (1986-1989). Dr. Roberts has been a faculty member at the University of Florida since 1989. His research addresses mechanisms of toxicity, particularly involving the liver and immune system. Dr. Roberts also has an active research program in toxicokinetics, especially involving bioavailability of environmental toxicants, as well as approaches to evaluation of potential toxicity of nanomaterials. He serves as an advisor to regulatory agencies on topics related to risk assessment.

## Rooney, Andrew

**NIEHS**

Dr. Andrew A. Rooney is a Senior Health Scientist in the Office of Health Assessment and Translation at the National Toxicology Program. Dr. Rooney completed his graduate training at the University of Florida, earning a M.S. in Zoology in 1994 and Ph.D. in 1998. Dr. Rooney served as a postdoctoral research fellow in immunotoxicology at the University of Quebec, INRS-SANTÉ from 1999-2000 and as a postdoctoral fellow with the NCSU and US EPA in NHEERL's Immunotoxicology Branch from 2000-2003. His experiences from the experimental fields of immunotoxicology, reproductive toxicology and developmental toxicology have provided important perspective on risk assessment for the protection of public health. While a member of the US EPA's Integrated Risk Information System Staff, Dr. Rooney became aware of the acute need for risk assessment guidance to cover immunotoxicity and immune-related health effects.
Dr. Rooney has been actively involved in developing risk assessment guidance for immunotoxicants and brought that interest and expertise to the NTP's Office of Health Assessment and Translation in 2009. He is a member of the World Health Organization (WHO)/IPCS workgroup on the Development of Guidance for Immunotoxicity Risk Assessment and principal author of the 2011 draft Guidance for Immunotoxicity Risk Assessment for Chemicals that is scheduled to be finalized in 2012. Dr. Rooney is lead author of the Immunotoxicity Risk Assessment Chapter and co-author of three of the case studies that illustrate risk assessments of example immunotoxicants: halogenated platinum-salts, mercury, and trichloroethylene. Dr. Rooney is also a strong believer in risk assessment education and along with colleagues, he has developed a continuing education course on immunotoxicity risk assessment to teach the WHO/IPCS guidance on immunotoxicity risk assessment at the 2012 Society of Toxicology and 2012 Congress of the European Societies of Toxicology (Eurotox) meetings.

## Rowlands, J. Craig

**Dow Chemical Company**

Dr. Craig Rowlands is a Senior Scientist with The Dow Chemical Company and is based in Midland, Michigan. He is a board-certified toxicologist with 20 years of experience in the fields of toxicology and risk assessment. Dr. Rowlands received his B.Sc. in Biochemistry and his Ph.D. in Molecular Toxicology from the Texas A&M University and completed a post-doctoral fellowship in molecular endocrinology at the Karolinska Institute's Center for Biotechnology in Stockholm, Sweden. Dr. Rowlands has worked in academics and the federal government, including serving as a scientist at the U.S. Food and Drug Administration in Washington, D.C. where he was responsible for providing weight of evidence opinions on the scientific evidence supporting risk benefit claims. Dr. Rowlands has had academic appointments as Assistant Professor in the Departments of Pediatrics, and Toxicology and Pharmacology at the University of Arkansas Medical Center and is an Adjunct Faculty Member at the Center for Integrative Toxicology at Michigan State University. He has extensive

experience assessing potential human health risks associated with exposures to a wide variety of consumer products, food ingredients and additives, medical devices, pesticides, industrial chemicals, and environmental agents. He has conducted risk assessments for a number of those products, incorporating information on exposure and modes of action, and has assisted in the preparation of reports for submission to regulatory agencies such as the FDA, EPA and ECHA. Dr. Rowlands is skilled at evaluating data concerning modes and mechanisms of action for use in both cancer and non-cancer risk assessments. He has conducted and published studies evaluating the toxicity, mode of action and species sensitivities to a variety of halogenated aromatic hydrocarbons and nitriles. Dr. Rowlands is an author on over 50 peer-reviewed publications and has presented at numerous scientific conferences. He is an active member of Society of Toxicology where he has held elected and appointed positions. In addition, Dr. Rowlands has served on scientific panels and technical workgroups and serves as the co-chair of the Society of Toxicology, Current Concepts in Toxicology workshop on the use of Tox21 methods in risk assessment to be held in 2012.

## Rudel, Ruthann

**Silent Spring Institute**

Ruthann Rudel is the Research Director at Silent Spring Institute, where she leads major exposure and toxicology research programs focusing on endocrine active chemicals and on mechanisms by which chemicals may influence breast cancer risk. Her work in toxicology includes a recent review of early life exposure to chemicals that alter mammary gland development and implications for testing protocols and risk assessment, published this year in Environmental Health Perspectives. She also directed a major review of animal mammary gland carcinogens—published in Cancer in 2007—that compiled existing research on these carcinogens, reviewed key issues in study design and animal models, and synthesized information on exposure opportunities. She has also published on toxicology and risk assessment for metals, indoor air pollutants, and endocrine disruptors. Her current research includes a new project funded by the California Breast Cancer Research Program to transfer ToxCast assays into mammary tissue models and identify the assays that predict rodent mammary gland carcinogens. Ruthann has made major contributions to understanding exposures to semivolatile indoor pollutants, especially endocrine active chemicals. She directs Silent Spring Institute's Household Exposure Study, which was described by Environmental Science & Technology as the "most comprehensive analysis to date" of exposures in homes and is widely cited. Rudel has expanded the initial study to include indoor and outdoor air, house dust, urine, blood, and self-reported exposure data from 170 participants in California and Massachusetts, leading to at least 16 peer-reviewed, exposure-related papers with more than 400 citations to date. Major contributions include identifying previously unrecognized sources of ongoing PCB exposures in homes and discovery that PBDE exposures are higher in California due to unique furniture flammability standards. Her current research seeks to identify biological and environmental measures of chemical exposure suitable for integration into existing breast cancer cohort studies, with target chemicals selected based on cancer bioassays and other experimental data. Her research has been conducted in collaboration with co-investigators at Harvard, Brown, Tufts, UC-Berkeley, USGS, and the US Centers for Disease Control. She has an adjunct appointment as a Research Associate in the Brown University Department of Pathology and Laboratory Medicine and has served on the US National Toxicology Program Board of Scientific Counselors. Rudel earned her B.A. in chemistry and neuroscience from Oberlin College, and an M.S. in environmental management and policy from Tufts University. Ruthann has been co-leading Silent Spring Institute's research program for 16 years, and prior to that worked as a consultant at Gradient Corporation. Silent Spring Institute is a scientific research organization dedicated to innovative, multidisciplinary studies of environmental factors and women's health.

## Rusyn,Ivan

**University of North Carolina at Chapel Hill**

Dr. Ivan Rusyn is Professor with tenure in the Department of Environmental Sciences and Engineering in the School of Public Health at the University of North Carolina at Chapel Hill. He directs the Laboratory of Environmental Genomics and the Carolina Center for Computational Toxicology in the Gillings School of Global Public Health at UNC. He is a member of the Lineberger Comprehensive Cancer Center, Center for Environmental Health and Susceptibility, Bowles Center for Alcohol Studies, and the Carolina Center for Genome Sciences. Dr. Rusyn served on several committees convened by the US National Research Council and the WHO/IARC. Dr. Rusyn's laboratory has an active research portfolio funded by the National Institutes of Health and the US EPA with a focus on the mechanisms of action of environmental toxicants, the genetic determinants of the susceptibility to toxicant- induced injury, and computational toxicology. His laboratory applies molecular, biochemical, genetic and genomics approaches to understanding the mechanisms of environmental agent-related disease. His studies on health effects of environmental agents resulted in more than 110 peer-reviewed publications. Dr. Rusyn received his M.D. (with honors) from Ukrainian State Medical University in Kiev and his Ph.D. in Toxicology from UNC-Chapel Hill. He also trained at the University of Dusseldorf in Germany and at the Massachusetts Institute of Technology.

## Sass, Jennifer

**Natural Resources Defense Council**

Dr. Sass is a Senior Scientist in the Health and Environment program of the NRDC, an environmental non-profit organization, and a Professorial Lecturer at George Washington University, Department of Environmental and Occupational Health. She is an expert in US chemical policy and regulations. Dr. Sass has degrees in Anatomy and Cell Biology from the University of Saskatchewan, Canada, and Toxicology from the University of Maryland. In her work with NRDC she reviews the science underpinning the regulation of toxic chemicals, and advocates for health-protective regulations consistent with the environmental statutes. Dr. Sass publishes in peer-reviewed journals on the regulation of toxic chemicals and emerging contaminants such as nanomaterials. She provides testimony and scientific briefings for the U.S. Congress and regularly participates in stakeholder and expert scientific federal advisory committees.

## Scialli,Anthony

**Tetra Tech Sciences**

Anthony Scialli, M.D. is Senior Scientist at Tetra Tech Sciences, a health risk assessment consulting firm. Doctor Scialli specializes in reproductive and developmental toxicology and in reproductive medicine. Doctor Scialli is Adjunct Professor of Obstetrics and Gynecology and of Pharmacology and Physiology at Georgetown University Medical Center, where he teaches medical students. He is Clinical Professor

of Obstetrics and Gynecology at George Washington University, where he teaches residents and medical students and provides clinical services, including delivering babies. Dr. Scialli is Director of the Reproductive Toxicology Center, a Non-Profit Foundation in Washington, D.C., which operates the online data base REPROTOX®, a resource for clinicians and other professionals with an interest in reproductive toxicology. Dr. Scialli received his Doctor of Medicine degree at Albany Medical College, following which he completed a residency in Obstetrics and Gynecology at George Washington University and a Fellowship in Reproductive Toxicology at Columbia Hospital for Women Medical Center in Washington, D.C. He was Director of the Residency Program in Obstetrics and Gynecology at Georgetown University Hospital for 17 years and is the Founding Editor of the journal, Reproductive Toxicology, published by Elsevier Science. Doctor Scialli is a Past President of the Teratology Society, and a member of the Society of Toxicology, the American College of Toxicology, the Society for Reproductive Medicine, and the American College of Obstetricians and Gynecologists.

## Sipes,I. Glen

**University of Arizona**

Dr. Sipes earned a B.S. in Pharmacy from the University of Cincinnati (1965) and the Ph.D. in Pharmacology from the University of Pittsburgh (1969) under the direction of J. P. Buckley. After three years as a staff fellow at NIH, with Drs. B. Brodie and J. Gillette, he joined the faculty at the University of Arizona as an assistant professor in 1973. There he developed a research program with emphasis on the biotransformation of drugs and environmental chemicals and on mechanisms of chemical-induced liver and ovarian injury. He is the author of over 250 research publications and several review articles and book chapters. As an academic scientist Dr. Sipes has trained 42 MS and 30 PhD students and mentored 27 postdoctoral fellows. Dr. Sipes has just retired as Professor and Head of the Department of Pharmacology in the College of Medicine at the University of Arizona, a position he held since 1993 and has been granted emeritus status. During his tenure at the University of Arizona he was also Professor of Pharmacology and Toxicology and Anesthesiology. For 19 years he served as Head of the Department of Pharmacology and Toxicology in the College of Pharmacy. During that time he was the founding Director for both the Center for Toxicology and the Southwest Environmental Health Sciences Center. Both of these centers are a result of Dr. Sipes being designated a Burroughs Wellcome Toxicology Scholar (1985-1990). Dr. Sipes has been active in a number of professional/scientific organizations. For the Society of Toxicology he served as Secretary, Vice President and President, and was Editor of Toxicology and Applied Pharmacology for seven years. He was associate editor of Life Sciences and on the the editorial boards of Quality Assurance, Annual Review of Pharmacology and Toxicology, and Molecular Interventions. Other professional activities included serving as a Councilor for the International Society for the Study of Xenobiotics, the American Society for Pharmacology and Experimental Therapeutics, the Association of Medical School Pharmacology Chairs, as Chair of the Pharmaceutical Sciences section for the American Association for the Advancement of Science, of which he is also a Fellow; and, as a member of the NAS/NRC Committee of Toxicology and on its Board of Environmental Studies and Toxicology. He was Chairperson of the NIH Toxicology Study Section and a member of the National Advisory Environmental Health Sciences Council. Dr. Sipes was elected a Fellow of the Academy of Toxicological Sciences, and recently served as its President. Along with Drs. AJ Gandolfi and C McQueen Dr. Sipes was an Editor-in-Chief of the 13 volume series entitled, Comprehensive Toxicology. From 1998-2004, Dr. Sipes was President of the International Union of Toxicology. Currently, he is a technical advisor to the Joint Expert Committee on Food Additives for the WHO/FAO and a member and Chair of the Research Institute for Fragrance Material's Expert Panel. To recognize his many contributions, Dr. Sipes was awarded the 2011Distinguished Scientist Award from the American College of Toxicology.

## Skoglund,Robert

**3M Company**

Dr. Skoglund is a toxicologist, environmental chemist, and industrial hygienist. He is presently a Senior Laboratory Manager at the 3M Company in St. Paul, Minnesota, and is responsible for the science-based and globally consistent assessment and communication of the hazards and risks of materials important to 3M. In addition he serves as an Adjunct Professor at theUniversity of Minnesota, where he teaches and advises students in both the Toxicology Graduate Program and the School of Public Health's Division of Environmental HealthSciences. Dr. Skoglund has a doctorate and a master's degree in Environmental Health from the University of Minnesota where he specializes in environmental chemistry and toxicology, isboard-certified in both general toxicology by the American Board of Toxicology and the comprehensive practice of industrial hygiene by the American Board of Industrial Hygiene, andhas over twenty-five years of experience in regulatory and applied toxicology. Areas of expertise include the assessment and communication of the physical, health, and environmentalhazards and risks of consumer and industrial products and their manufacturing processes. Areas of limited research and teaching include the incorporation of advances in toxicologytesting and risk analysis into the assessment of materials within a global legislative and regulatory framework and the science-based assessment of sustainable or green products. Dr.Skoglund is presently active, through technical, advocacy, governing, and advisory boards, in professional organizations including the Society of Toxicology, the American Industrial Hygiene Association, and the Society for Chemical Hazard Communication, and trade organizations, including the Consumer Specialty Products Association and the American Chemistry Council. Dr. Skoglund presently serves on the Advisory Board for the NIEHS Midwest Consortium for Hazardous Waste Worker Training. In the past he served as a US industry representative to the Coordinating Group for the Harmonization of Chemical Classification Systems during the development of the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS), as well as at the European Commission's REACH Implementation Projects (RIP) during the development of their guidance, including RIP 3.2: Chemical safety reports and safety data sheets and RIP 3.3: Information requirements on intrinsic properties of substances.

## Smith,C. Mark

**Massachusetts Department of Environmental Protection**

Dr. C. Mark Smith is the Deputy Director of the Office of Research and Standards (ORS) at the Massachusetts Department of Environmental Protection (MassDEP) where he has lead a number of the Department's efforts to address priority air, water, solid waste and multimedia pollutants. He earned his Ph.D. in the field of Molecular and Cellular Toxicology from Harvard University and Masters degree in Environmental Management from the Harvard School of Public Health and has published in the areas of environmental policy, molecular toxicology and epidemiology, and risk assessment. Mark was an organizing member of, and now Chairs, the Environmental Council of States Quicksilver Caucus and Co-chairs the New England Governors (NEG) and Eastern Canadian Premiers (ECP) Mercury Task Force,

organizations that have served as national and international leaders in efforts to address mercury pollution. He has played key roles in developing and implementing the NEG-ECP Regional Mercury Action Plan and the MA Zero Mercury Strategy; establishing the first drinking water standard for perchlorate; developing departmental strategies to address potential risks associated with waste material reuse; and establishing exposure guidelines and standards for air toxics, drinking water contaminants and hazardous waste sites.

## Smith,Ladd

**Research Institute for Fragrance Materials**

Since 1998, Dr. Ladd Smith has been president of the Research Institute for Fragrance Materials, Inc., an international organization, which evaluates the safety of fragrance ingredients. Previously, he was responsible for product stewardship at Occidental Chemical. Prior positions at GE Plastics and Dupont involved health care cost containment, regulatory affairs and laboratory research. During his career, he has assumed leadership roles on association boards and committees, has helped develop graduate and cooperative education programs and has published on subjects including health and environmental research, information management and risk assessment. Ladd received his doctorate in pharmacology from the Medical College of Virginia, his masters in bioengineering from Clemson University and his bachelors in zoology from the University of South Florida. He is a diplomate of the American Board of Toxicology and has served as the president of its Board. He is a Fellow of the Academy of Toxicological Sciences and serves on the Advisory Board of the Center for Alternatives to Animal Testing of the Bloomberg School of Public Health at Johns Hopkins University. Ladd also is a Certified Association Executive and active in the American Society of Association Executives.

## Squibb,Katherine

**Univ of Md, Balitmore**

Dr. Squibb is the Director of the University of Maryland's Toxicology Program. She has an MS and PhD in Biochemistry from Rutgers (1977). Dr. Squibb has more than 30 years of experience investigating the health effects of metalloids and metals using both in vivo and in vitro experimental techniques. She is past president of the SOT Metals Specialty Section (2001), as well as past councilor of the SOT Metals Specialty Section (2002). She has published extensively in the area of metal- and metalloid-related toxicology. Her recent contract support (detailed in her attached c.v.) includes an EPA STAR grant titled "Mechanisms of Lead, Cadmium, and Arsenic Interactions", a Veteran's Administration study on the health effects of depleted uranium among veterans, and a NIEHS training grant titled "Mechanisms of Aquatic, Neuro and Cellular Toxicology."

## Stahlhut,Richard

**University of Rochester**

Dr. Richard W. Stahlhut is an environmental health researcher at University of Rochester Medical Center, Department of OB/GYN. His focus is to determine whether and how common chemical exposures might be contributing to the epidemics of obesity, type 2 diabetes, and other related diseases. His broad training helps me make connections between disciplines and ask novel, human-centered (translational) research questions. Dr. Stahlhut is board-certified in preventive medicine, and my education includes: medicine (MD, Indiana), biostatistics (MS, Harvard), medical informatics (fellowship, Massachusetts General Hospital), public health (MPH, U of Rochester), and toxicology (fellowship, U of Rochester). His first two research papers were published in 2007 and 2009 in Environmental Health Perspectives, one of the premier journals of this field. These have been cited 91 and 51 times, respectively. As an MD researcher with preventive medicine training, Dr. Stahlhut therefore has a responsibility to help identify the root causes of illness, and strive to prevent it.

## Stanford,Benjamin

**Hazen and Sawyer, P.C.**

Dr. Stanford serves as the Director of Applied Research for Hazen and Sawyer, where he coordinates company-wide research efforts in water, wastewater, and reuse, and participates in study design, QA/QC, and report writing. Dr. Stanford is currently leading and/or participating in five studies involving emerging contaminants from the WateReuse Research Foundation, Water Research Foundation, and Water Environment Research Foundation (WERF). He also directs and manages a portfolio of 17 active grant-funded research projects. Dr. Stanford is co-authoring a chapter on emerging contaminants and public health risks for the US EPA Water Reuse Guidelines and serves as a technical expert on AWWA's Candidate Contaminant List Technical Advisory Workgroup. He is also a member of WERF's Biosolids Exploratory Team and Issue Area Team. He serves on the AWWA Trace Organic Contaminants Committee and has served as a reviewer for the US EPA SBIR program and the USDA Agriculture and Food Research Initiative. Finally, Dr. Stanford is the Americas Editor for the IWA Journal AQUA. In addition to research efforts, Dr. Stanford supports new and existing design work at Hazen and Sawyer as a technical expert. Prior to joining Hazen and Sawyer, Dr. Stanford worked with Shane Snyder at the Southern Nevada Water Authority, where he investigated, among other things, emerging contaminant treatment and a variety of drinking water, wastewater, and water reuse process optimization studies. His diverse responsibilities have included designing and managing studies on chlorine chemistry, perchlorate, and chlorate formation; water reuse; reducing organic fouling in RO and NF membrane systems; fate and transport of micro-pollutants in wastewater and drinking water systems; evaluation of novel pilot-scale water treatment technologies for the removal of emerging contaminants; investigations of climate change on drinking water quality; and in vivo and in vitro toxicology studies.

## Stayner, Leslie Thomas

**University of Illinois**

Dr. Stayner is currently a Professor of Epidemiology at the University of Illinois' School of Public Health in Chicago (UIC SPH). He is also Director of the Occupational and Environmental Epidemiology Program and was formerly the Director of the Division of Epidemiology and Biostatistics at UIC SPH. He also previously worked at the National Institute for Occupational Safety and Health in Cincinnati for nearly 25 years and in his last position was the Chief of their Risk Evaluation Branch. He has been a Visiting Scientist with the International Agency for Research on Cancer (IARC) in Lyon France and has participated in numerous of their monograph meetings. He received a M.S. in Epidemiology and Occupational Health and Safety in 1980 from the Harvard School of Public Health and his PhD in Epidemiology from the

University of North Carolina at Chapel Hill in 1989. His major research interests are in the area of occupational and environmental epidemiology with a primary focus on carcinogenic hazards, and on the development of epidemiologic methods. He has been involved in conducting research on cancer and exposure to asbestos, 1,3-butadiene, formaldehyde, diesel exhaust, hexavalent chromium, cadmium, silica and ethylene oxide. He has served as an advisor to numerous agencies including ATSDR, EPA, NRC/IOM, OSHA, MSHA and the WHO. He is currently engaged in a CDC funded study to examine the potential association between exposures to atrazine and nitrates in drinking water and the rate of adverse pregnancy outcomes and childhood cancer in eight Midwestern states.

## Stern,Alan

**New Jersey Department of Environmental Protection/University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School.**

Dr. Alan H. Stern is the Section Chief for Risk Assessment in the Office of Science of the New Jersey Department of Environmental Protection; Adjunct Associate Professor in the Department of Environmental and Occupational Health of the University of Medicine and Dentistry of New Jersey-School of Public Health. He received a bachelor's degree in biology from the State University of New York at Stony Brook (1975), a master's degree in cellular and molecular biology from Brandeis University (1978), a master of public health degree (1981) and a doctorate in public health from the Columbia University School of Public Health (1987). Dr. Stern is board-certified in toxicology by the American Board of Toxicology (Diplomate of the American Board of Toxicology). Dr. Stern's areas of expertise include risk assessment and exposure assessment including the application of probabilistic techniques to quantitative estimation of exposure and risk. His research interests have focused on heavy metals including lead, mercury, chromium and cadmium. Dr. Stern was a member of the National Research Council/National Academy of Sciences Committee on the Toxicology of Methylmercury (1999-2000) and a member of the recent USEPA Science Advisory Board panel for the National-Scale Mercury Risk Assessment for Coal- and Oil-Fired Electrical Generating Units (June-July 2011) as well as the USEPA Science Advisory Board Panel for Peer Review of the All-Ages Lead Model (Oct. 27-28, 2005). He has also served on numerous USEPA-IRIS review panels including Toxicological Review of Urea (Dec. 13, 2010, Panel Chair), Toxicological Review of Trichloroacetic Acid (Dec. 10, 2009, Panel Chair), Toxicological Review of 2-Hexanone (May 22, 2008, Panel Chair), Toxicological Review of Toluene (Feb. 5, 2004, Panel Chair). Other panels, committees and workshops include, ATSDR Toxicological Profile Review of Revised Minimal Risk Levels (MRLs) for 1,4-Dioxane (March-April, 2010), ATSDR Toxicological Profile Review of Revised Inhalation MRL for 1,4-dioxane (Sept. 2011),.USEPA Panel for the Review of Draft Exposure Factors Handbook (March 3-4, 2010), USEPA Workshop on Cardiovascular Toxicity of Methylmercury (Jan. 12-13, 2010), USEPA Panel for Review of "Draft Child-Specific Exposure Factors Handbook" (Sept. 19-20, 2007. Dr. Stern has authored numerous articles in peer-reviewed journals, and contributed a book chapter on Exposure Assessment for Neurotoxic Metals in "Human Developmental Neurotoxicology" D. Bellinger, ed. (Taylor & Francis, New York, 2006.), and the article on . "Environmental Health Risk Assessment" in the Encyclopedia of Quantitative Risk Assessment and Analysis. John Wiley and Sons Ltd., 2008.

## Sweet,Len

**Lubrizol Corp.**

Dr. Len Sweet is currently a Senior Regulatory Toxicologist with The Lubrizol Corporation. Dr. Sweet received his MPH, MSc, and PhD focusing on toxicology and environmental and industrial health from the University of Michigan. Before joining Lubrizol, Dr. Sweet was a Senior Health Scientist with ChemRisk, manager of toxicology and product stewardship at a major specialty chemical company, and a managing toxicologist and environmental scientist in the automotive sector. He is a human health and environmental toxicologist and former EPA STAR Fellow with over 10 years of experience in environmental health and safety, and specializes in chemical exposure evaluation, risk assessment and communication, product stewardship and defense, and biomedical aspects of toxicology. Dr. Sweet has evaluated and reported on the health effects of environmental and occupational exposure to a wide range of chemicals – including flame retardants, nanomaterials, asbestos, refractory ceramic fibers, perfluorinated compounds, chlorinated solvents, metalworking fluids, chromium, lead, mercury, precious metals, dioxins, PCBs -- as well as biological hazards such as legionella. He has served as an expert witness in Superfund cost allocation for CHCs and FIFRA data compensation. Dr. Sweet has provided consulting expertise regarding lindane's toxicity profile as well as DOT toxicity testing for motor oil. He has also served in a scientific leadership capacity for industry on such programs as HPV, VCCEP, IRIS, CEPA, EU RARs, and REACH. Dr. Sweet has published over 20 peer reviewed publications, and has been an invited speaker or presented at numerous seminars and conferences. Dr. Sweet is a peer reviewer for numerous scientific journals, book publishers, and grant foundations, and is an active member in numerous professional organizations including the Society of Toxicology (SOT), the American College of Toxicology (ACT), and the Society of Environmental Toxicology and Chemistry (SETAC).

## Tyl, Rochelle

**RTI International HLB-124**

For more than 40 years, Dr. Shelley Tyl, PhD, DABT, has been designing, directing, and performing basic and applied research studies, managing research programs, and mentoring junior scientists in the field of developmental and reproductive toxicology. Dr. Tyl's experience spans university, industrial, independent and contract R&D settings. After receiving a PhD in developmental genetics from the University of Connecticut, she was a tenured associate professor at UConn, served as head of teratology at the Chemical Industry Institute of Toxicology (now the Hamner Institutes for Health Sciences), and was manager of reproductive and developmental toxicology, and assistant director at the Bushy Run Research Center. Currently, she is the senior director of the program in developmental and reproductive toxicology (DART) in RTI International's Center for Pharmacology and Toxicology and an RTI Distinguished Fellow. She also holds an adjunct faculty position at the University of North Carolina·Chapel Hill, and teaches in their Curriculum in Toxicology doctoral program. Dr. Tyl and her collaborators have held and currently hold major government contracts in reproductive and developmental toxicology, including the EPA Endocrine Disruptor Screening Program and the Reproductive Assessment by Continuous Breeding (RACB) and Sperm Count Vaginal cytology Evaluations (SCVCE) contracts of the NIEHS National Toxicology Program. Her team also designs, performs, and reports on studies for U.S. and international pharmaceutical, agrochemical, and commodity chemical companies and consortia, under appropriate regulatory testing guidelines and Good Laboratory Practices GLPs). Dr. Tyl has an international reputation for designing, executing, and reporting the findings of hundreds of complex and comprehensive studies of the highest scientific caliber, which require compliance with appropriate GLP regulations, standards, and principles. She is an internationally acknowledged expert in the field of reproductive and

developmental toxicology, and has consulted for governmental and commercial entities. She has served on federal agency advisory committees and work groups, including the Federal Endocrine Disruptors Screening and Testing Advisory Committee, the OECD Testing Guideline Program (Endocrine Disruptors), National Academies Expert Panels (most recently on Spacecraft Air and Water Exposure Guidelines), and ILSI/ HESI work groups. She was also a peer reviewer for EPA intramural research programs. She and her staff helped validate the intact weanling version of the uterotrophic assay and the adult castrate male version of the Hershberger assay for EPA Tier 1/OECD assays. She provides preclinical animal data to support development of newer and better drugs (FDA), toxicity assessments for pesticide registrations (EPA FIFRA), and commodity chemical premanufacturing notices (EPA TSCA PMNs), studies under OECD and REACH requirements, and animal study support for post-marketing surveillance (under FDA). Dr. Tyl has authored or co-authored over 105 peer-reviewed articles, over 20 book chapters, more than 90 presentation abstracts, and hundreds of study reports. She is an ad hoc reviewer for more than 10 journals and serves on the editorial board of Reproductive Toxicology. She was also co-editor (with Dr. Robert W. Kapp, Jr.) of Reproductive Toxicology, Third Edition, New York, NY: Informa Healthcare, 2010. Dr. Tyl has been an active member of and held various offices within a number of professional scientific associations, and was elected president of the Teratology Society (2003---2004), and president of the Reproductive and Developmental Toxicology Specialty Section of the Society of Toxicology (2007---2008). She has maintained certification as a Diplomate of the American Board of Toxicology, since 1983, and served on its board for 5 years (2003---2007).

## Vena, John

**University of Georgia**

Dr. John E. Vena. is the Head of the Department of Epidemiology and Biostatistics and University of Georgia Foundation Professor in Public Health at the College of Public Health, University of Georgia. For the past five years he served as Professor and Chair of the Department of Epidemiology and Biostatistics at the Arnold School of Public Health at the University of South Carolina (USC). Dr. Vena was Professor of Social and Preventive Medicine at the State University of New York at Buffalo, School of Medicine and Biomedical Sciences and a research fellow at Roswell Park Cancer Institute (1981-2003) and Director of the Environment & Society Institute (1999-2003). Dr. Vena received his B.S. in Biology from St. Bonaventure University and his M.S. and Ph.D. degrees in Epidemiology from the State University of New York at Buffalo. Dr. Vena is a Fellow of the American College of Epidemiology and the American Epidemiological Society, a member of the International Society for Environmental Epidemiology, Society for Epidemiologic Research and the American Public Health Association (APHA) and currently serves on the Governing Council for Epidemiology for APHA. He has published extensively in the field of environmental and occupational epidemiology and his studies have included descriptive and analytic studies of air and water pollution, bladder cancer and drinking water contaminants, occupational exposures, health of municipal workers including firefighters and police officers, diet, electromagnetic fields and persistent environmental toxicants. Dr. Vena served on the National Academy of Science Committee for the evaluation of the impact of oceans on human health in 1999 and the Committee on Gulf War and Health: Pesticides and Health, Solvent/ Cancer Panel in 2002-2003. He was a recent invited speaker to the Presidents Cancer Panel. Since 1981, Dr. Vena has taught courses in epidemiologic methods and applications in occupational health and in environmental health and has mentored graduate students, post-doctoral fellows and junior faculty.

## Viera, Veronica

**Boston University**

Dr. Verónica M. Vieira is an associate professor in the Department of Environmental Health at the Boston University School of Public Health. She received her MS in environmental engineering from Stanford University and her DSc in environmental health from Boston University. Her research interests are in exposure modeling, spatial analysis methods, and cancer epidemiology. She has worked extensively on the reconstruction of historic environmental exposures using GIS and has a thorough knowledge of groundwater modeling, cluster detection methods, and on persistent environmental contaminants including tetrachloroethylene (PCE, a dry-cleaning solvent), polybrominated diphenyl ethers (PBDEs, a common class of flame retardants), and perfluorooctanoic acid (PFOA, used in the manufacturing of Teflon). Dr. Vieira is a co-investigator on the drinking water exposure assessment study for a community located near a large chemical plant that emitted PFOA into the local air and water for several decades. She has worked with the community health study data, geocoding the residential histories, analyzing the water monitoring data, and determining the geographic extent and installation years of the pipe networks for the contaminated public drinking water districts in the study area. She has also contributed to the development of a fate and transport model that involved the integration of output from several compartments (aerial deposition, vadose zone, surface water, and ground water) in order to estimate drinking water concentrations. In addition, Dr. Vieira is the Principal Investigator of an NIH grant to investigate the relationship between modeled ambient $PM_{2.5}$ and infant morbidities in Massachusetts. As a researcher with the Boston University Superfund Research Program for over 10 years, she has investigated spatial patterns of cancer and reproductive outcomes in Cape Cod, MA. She has also worked with colleagues at Harvard University School of Public Health to examine geographic patterns of rheumatoid arthritis and stroke among the participants of the Nurse's Health Study cohort. She is a state-appointed member of the science advisory board for the Massachusetts Toxics Use Reduction Institute. Dr. Vieira has also served on National Academy of Science panels.

## Waalkes, Michael

**National Institutes of Environmental Health Sciences**

Dr. Michael P. Waalkes is a Branch Chief with the National Toxicology Program (NTP). He received his Ph.D. (1981) in Pharmacology and Toxicology from West Virginia University and was a Postdoctoral at the University of Kansas (1981-1983) studying mechanisms of metal toxicity in early life. He joined the National Cancer Institute in Frederick, MD in 1983; then in 1996 he was detailed to National Institute of Environmental Health Sciences. In 2010 he joined the NTP and now leads the NTP Laboratory. Current research involves the role of stem cells in inorganic carcinogenesis and studies on the fetal basis of adult disease including cancer. Dr. Waalkes received the Society of Toxicology *Achievement Award* (1990) for young scientists and the *Career Achievement Award* from the Metals Speciality Section in 2007. He was Editor-in-Chief of *Toxicology and Applied Pharmacology* (2000-2010), and now serves on various other Editorial Boards, including as Associate Editor of *Environmental Health Perspectives*. He is now a Councilor of the Society of Toxicology and has been on the Program Committee, Board of Publications, Education Committee, and was President of the Metals Specialty Section, Stem Cells Specialty Section,

and North Carolina Regional Chapter. Dr. Waalkes has worked with extensively with international regulatory groups, such as the International Agency for Research on Cancer (IARC), and has participated in the preparation of five IARC monographs. Dr. Waalkes has over 340 publications.

## Walker, Katherine

**Health Effects Institute**

Dr. Katherine D. Walker is a senior staff scientist at the Health Effects Institute in Boston MA. She is an environmental health scientist with 20 years of experience in public health risk assessment and its application to the regulatory process. Dr. Walker has been responsible for numerous risk analyses spanning a wide range of topics including cancer risks of volatile organic chemicals in drinking water, public health and environmental risks of hazardous (chemical and nuclear) waste sites, the cost effectiveness of risk management decisions at hazardous waste sites, and implications of pesticide exposure profiles for regulatory decisions, among others. Dr. Walker specializes in the analysis of uncertainty in human exposures and health risks. In her most recent work in this area, Dr. Walker has served as the senior scientific consultant on EPA's pilot and expanded studies on the use of expert judgment elicitations to characterize uncertainty in the concentration response relationship between PM2.5 and mortality. Her doctoral research at Harvard School of Public Health involved the elicitation of probabilistic expert judgments from benzene exposure assessment experts about both the variability and uncertainty in ambient, indoor, and personal exposures to benzene. Her study was one of the first studies of subjective expert judgment to assess quantitatively the quality, or calibration, of the experts' judgments about uncertainty using monitoring data collected as part of the USEPA National Human Exposure Survey (NHEXAS) on the same benzene distributions the experts were asked to predict. She holds a Sc.D. in Environmental Health Sciences from the Harvard School of Public Health. She has served as the chair of the exposure assessment specialty group for the Society for Risk Analysis (SRA) (2004-5) and as a member of SRA's Conference and Workshops Committee (2005 to present).

## Webster, Thomas

**Boston University School of Public Health**

Tom Webster has several main research areas: 1) exposure routes and health hazards of chemicals used in consumer products, especially polybrominated diphenyl ethers (PBDEs), other flame retardants, and perfluoralkyl compounds (PFCs); 2) interactions of chemicals (with applications in toxicology and epidemiology); 3) endocrine disruption; 4) methodological aspects of environmental epidemiology, particularly issues in spatial epidemiology such as disease mapping and clusters, ecologic bias, and the use of combinations of individual and group level data. Like the rest of my department, I am very interested in the community context of environmental health. Dr. Webster is an investigator in Boston University's Superfund Basic Research Program. He served on the National Research Council's Subcommittee on Fluoride in Drinking Water and the Institute of Medicine's Committee on Making Best Use of the Agent Orange Exposure Reconstruction Model.

## Wei, Robert

**Cleveland State University**

Dr. Robert Wei is a clinical chemist certified by the American Board of Clinical Chemistry (ABCC), which is analogous to the certifying boards in various medical specialties. The Board certification is required in many states including California and New York to be able to serve as director of hospital/reference laboratories. The certification is also required for directing the education and training program (as I served as PhD Program director in clinical chemistry, 1979-1986). Dr. Wei has created and taught the graduate-level /upper-level undergraduate courses in environmental chemistry (since 1992) and environmental toxicology (since 1998) at Cleveland State University. The environmental chemistry course deals with the occurrence , distributions , and chemical behavior of a wide range of contaminants and pollutants, while the environmental toxicology course focuses on the application of toxicological principles including toxicokinetic, toxic mechanisms, and assessment of health risks from exposure to toxicants in humans. As a Sr. Fulbright Fellow (to Sri Lanka), a Sri Lankan colleague and Dr. Wei initiated a research project for assessing occurrence and distribution of polycyclic aromatic hydrocarbons (PAH) in two most polluted lakes in Sri Lanka [Pathiratne, KAS, De Silva, OCP, Hehemann, D., Atkinson, I, Wei, R (2007). Occurrenc and Distribution of Polycyclic Aromatic Hydrocarbons (PAHs) in Bolgoda and Beira Lakes, Sri Lanka. Bull Environ Contam Toxico 79: 135-140]. When Dr. Wei went to Istanbul, Turkey (again on Sr. Fulbright Fellowship in 2010-2011), a collaborative research project on health risk of commuters in Istanbul was initiated. Dr. Wei has mentored over a dozen doctoral dissertation projects as a primary mentor. Finally, over the years Dr. Wei have served on the NIH study panels, reviewed numerous manuscripts for publications as well as research grant proposals.

## White, Paul

**Health Canada**

Dr. Paul White is currently a Canadian government research scientist and adjunct professor of biology at the University of Ottawa. With respect to the latter, he is a member of the Centre for Advanced Research in Environmental Genomics and the graduate program in Chemical and Environmental Toxicology at the University of Ottawa. He currently (2012) has 22 years of multidisciplinary research experience investigating the sources, fate and hazards of mutagenic and carcinogenic contaminants; in particular those presented as complex mixtures in complex environmental matrices (e.g., urban air, vehicle, contaminated soils). He has coordinated and guest edited the most up-to-date compilations on the sources, fate and hazards of environmental mutagens in complex matrices (e.g., air, water, soil, sediment). The series of 13 review articles, which includes three from his group, was published in *Mutation Research Reviews* in 2004 and 2007. As such, Dr. White is one of the leading experts on the environmental mutagens and in particular, mutagens in complex environmental matrices. His current work is investigating the sources, fate and hazards of mutagens and carcinogens in contaminated soils, vehicular exhausts, settled house dust, contaminated urban air, tobacco smoke, and cannabis smoke. In addition, his current work is (1) investigating the suitability of various in vitro and in vivo approaches for genetic toxicity assessment, regulatory decision-making, and risk assessment; and (2) employing genomic and proteomic methods to identify biomarkers of exposure to, or effect from, environmental mutagens in complex matrices. In this regard, he has established numerous national and international collaborations involving the University of Toronto, Texas A&M University, the University of Saskatchewan, the University of Ottawa, Carleton University, Umeå University (Sweden), the Danish National Research Centre for the Working Environment, King's College, London, Swansea University, Litron

Laboratories, BioReliance Corp, Integrated Laboratory Systems, the USFDA, the USEPA, Dow, Sanofi-Aventis, the International Life Sciences Institute (ILSI), and the RIVM (Holland). He has been invited to participate in numerous national and international activities coordinated by ECVAM, ECETOC, COLIPA, ILSI, and IARC. He served as Editor-in-Chief of *Environmental and Molecular Mutagenesis* (EMM) from 2007 to 2011, and is currently a member of the editorial board of EMM and *Mutation Research Reviews*.

## Yang, Raymond

**Colorado State University**

Raymond S. H. Yang is Professor Emeritus of Toxicology and Cancer Biology, and the former leader of the Quantitative and Computational Toxicology Group, at the College of Veterinary Medicine and Biomedical Sciences, Colorado State University (CSU). Between October 2007 and July 2009, Dr. Yang had also been a Visiting Scientist at the National Center for Environmental Assessment, USEPA, Cincinnati, to work on TCDD and chemical mixture toxicology and risk assessment, among other projects. Dr. Yang's research focuses on physiologically based pharmacokinetic/pharmacodynamic (PBPK/PD) modeling, and other biologically-based computer modeling with a special emphasis on the toxicology of chemical mixtures. Dr. Yang has had extensive research and administrative experience in academia, chemical industry, and the federal government. At CSU in the last 20 years, Dr. Yang had served in the capacity as a Department Head, a Center Director, and the Director for a NIEHS Quantitative Toxicology Training Program. Dr. Yang publishes extensively in biomedical journals and is the editor/co-editor of two books; Toxicology of Chemical Mixtures: Cases Studies, Mechanisms, and Novel Approaches (1994), and Physiologically Based Pharmacokinetics: Science and Applications (2005). Dr. Yang is a Fellow of Academy of Toxicological Sciences and served on many prestigious national and international committees and panels. Presently, Dr. Yang is working part-time as an international consultant; part of this service includes Dr. Yang's continuing teaching of his "PBPK Modeling Workshop for Beginners" at CSU and elsewhere in the US, Europe, and Asia.

## Zeise,Lauren

**California Environmental Protection Agency**

Dr. Lauren Zeise is Chief, Reproductive and Cancer Hazard Assessment Branch, of the California Environmental Protection Agency's (Cal/EPA) Office of Environmental Health Hazard Assessment. In that role she oversees a variety of scientific activities concerning risk assessment, including chemical hazard and dose response assessment and development of improved methods for risk assessment. As part of Cal/EPA's environmental justice work, her group is also developing the Agency's approach to cumulative impact assessment – for characterizing the impact on communities of multiple sources of pollution and non-chemical stressors in the presence of community vulnerability. Her group works with other departments in California government in operating Biomonitoring California, the state's biomonitoring program. She co-led the team that developed California's Green Chemistry Hazard Trait regulation. Dr. Zeise has served on numerous national and international science advisory committees and boards focusing on environmental public health and improving the way chemicals are tested or evaluated for health risk. She has coauthored a number of National Academy of Science (NAS) reports, including "Science and Decisions: Advancing Risk Assessment" (2009), "Toxicity Testing in the 21st Century: A Vision and Strategy" (2007), "Sustainability and the US EPA" (2011), and "Understanding Risk: Informing Decisions in a Democratic Society" (1996). She is currently a member of the NAS committees including the Committee on Use of Emerging Science for Environmental Health Decisions. Research interests focus on methodology for characterizing interindividual variability and for describing risks of data sparse chemicals. She is member, fellow, former editor and former councilor of the Society of Risk Analysis and was the 2008 recipient of the Society's Outstanding Risk Practioner Award. She is a lifetime NAS National Associate. She received her doctorate from Harvard University.

## Zoeller,R. Thomas

**University of Massachusetts**

Dr. R. Thomas Zoeller is Professor of Biology at the University of Massachusetts Amherst. He received his Bachelor's degree in Biology at Indiana University-Bloomington, followed by MS and Ph.D. degrees at Oregon State University. He pursued four years of postdoctoral studies in molecular endocrinology and neuroendocrinology at the National Institutes of Mental Health and Neurological Disorders and Stroke in Bethesda, MD. His first academic appointment in 1988 was as Assistant Professor in the Department of Anatomy and Neurobiology, University of Missouri-Columbia School of Medicine. He later joined the Biology Department at the University of Massachusetts Amherst, becoming appointed as Professor and later as Chair. Dr. Zoeller's research has focused on the role of thyroid hormone in brain development with a focus on the fetal cerebral cortex prior to the onset of fetal thyroid function. His work also includes a focus on environmental contaminants of all kinds that may interfere with thyroid hormone signaling and how best to visual the effects and consequences of this disruption.Dr. Zoeller currently serves on the chartered Science Advisory Board to the U.S. Environmental Protection Agency and is chair of the Exposure and Human Health Committee. Dr. Zoeller has been a member of the Editorial Board of Endocrinology and Environmental Toxicology and Pharmacology. He was a member of the U.S. EPA's Endocrine Disruptors Screening and Testing Advisory Committee (EDSTAC) Screening and Testing Workgroup as well as on the peer review panels for EPA's risk assessment for Perchlorate and PFOA. He served on the NIH Center for Scientific Review Integrative and Clinical Endocrinology and Reproduction study section. He was named "Scientist of the Year - 2002" by the Learning Disabilities Association of America and won the Samuel F. Conti Award for Research Excellence at the University of Massachusetts Amherst.